

TOSHIBA

FILE NO. 030-200102

SERVICE MANUAL

COLOUR TELEVISION

C00S Chassis

32Z17B

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CIRCUIT DIAGRAM

SAFETY INSTRUCTIONS

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE “X-RAY RADIATION PRECAUTION”, “SAFETY PRECAUTION” AND “PRODUCT SAFETY NOTICE” INSTRUCTIONS BELOW.

X-RAY RADIATION PRECAUTION

1. Excessive high voltage can produce potentially hazardous X-RAY RADIATION. To avoid such hazards, the high voltage must not be above the specified limit. The nominal value of the high voltage of this receiver is (A) kV at zero beam current (minimum brightness) under a (C) V AC power source. The high voltage must not, under any circumstances, exceed (B) kV.
2. The only source of X-RAY RADIATION in this TV receiver is the picture tube. For continued X-RAY RADIATION protection, the replacement tube must be exactly the same type tube as specified in the parts list.
3. Some part in this receiver have special safety-related characteristics for X-RAY RADIATION protection. For continued safety, parts replacement should be undertaken only after referring to the PRODUCT SAFETY NOTICE below.

Refer to table-1 for high voltage (A), (B) & AC voltage (C).
(See SETTING & ADJUSTING DATA on page 18)

Each time a receiver requires servicing, the high voltage should be checked following the HIGH VOLTAGE CHECK procedure in this manual. It is recommended that the reading of the high voltage be recorded as a part of the service record. It is important to use an accurate and reliable high voltage meter.

SAFETY PRECAUTION

WARNING : Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. Always discharge the picture tube anode to the CRT conductive coating before handling the picture tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled. Use shatter proof goggles and keep picture tube away from the unprotected body while handling.
3. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-ray radiation or other hazards.

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

SET-UP ADJUSTMENT

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed. Perform the adjustments in order as follows :

1. Color Purity
2. Convergence
3. White Balance

Note: The PURITY/CONVERGENCE MAGNET assembly and rubber wedges need mechanical positioning.

Refer to figure 1.

Mounting position of the purity magnet assembly should fit to same position as old one because slightly difference to the position depend on a kind of tube.

- * There are no adjustment of purity and convergence in some picture tube (Unified with purity magnet)

COLOR PURITY ADJUSTMENT

NOTE : Before attempting any purity adjustments, the receiver should be operated for at least fifteen minutes.

1. Demagnetize the picture tube and cabinet using a degaussing coil.
2. Set the brightness and contrast to maximum.
3. Use a green raster from among the built-in test signals.
4. Loosen the clamp screw holding the yoke and slide the yoke backward or forward to provide vertical green belt (zone) in the picture screen.

5. Remove the Rubber Wedges.

6. Rotate and spread the tabs of the purity magnet (See figure 2.) around the neck of the picture tube until the green belt is in the center of the screen. At the same time, enter the raster vertically.

7. Slowly move the yoke forward or backward until a uniform green screen is obtained. Tighten the clamp screw of the yoke temporarily.

8. Check the purity of the red and blue raster.

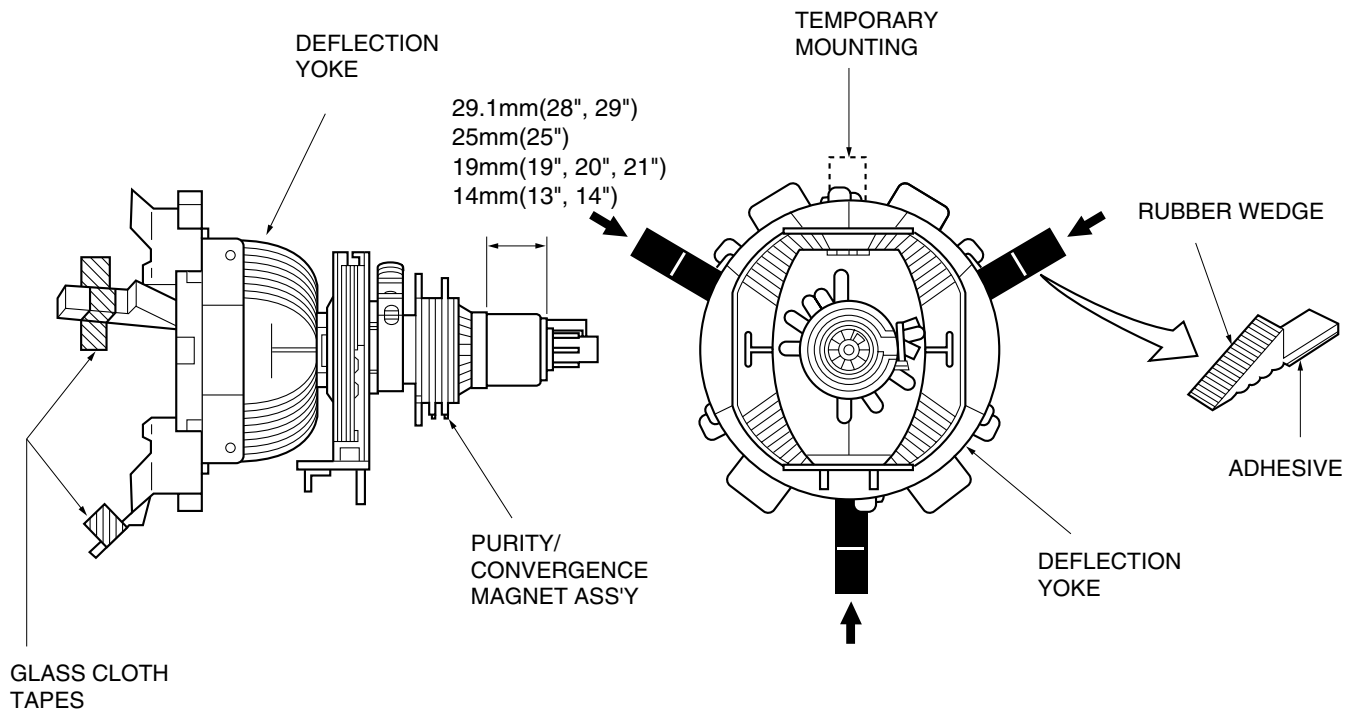


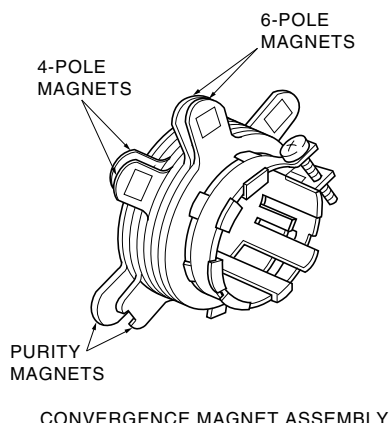
Figure 1.

CONVERGENCE ADJUSTMENTS

NOTE: Before attempting any convergence adjustments, the receiver should be operated for at least fifteen minutes.

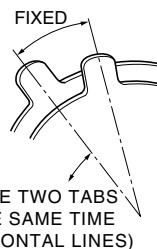
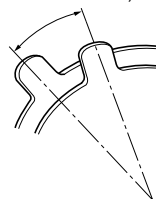
■ CENTER CONVERGENCE ADJUSTMENT

1. Use the cross-dot pattern from among the built-in test signals.
2. Set the brightness and contrast for well defined pattern.
3. Adjust two tabs of the 4-Pole Magnets to change the angle between them (See figure 2.) and superimpose red and blue vertical lines in the center area of the picture screen.
4. Turn the both tabs at the same time keeping the angle constant to superimpose red and blue horizontal lines at the center of the screen.
5. Adjust two tabs of 6-Pole Magnets to superimpose red/blue line and green one. Adjusting the angle affects the vertical lines and rotating both magnets affects the horizontal lines.
6. Repeat adjustments 3, 4, 5 keeping in mind red, green and blue movement, because 4-Pole Magnets and 6-Pole Magnets have mutual interaction and make dot movement complex.



CONVERGENCE MAGNET ASSEMBLY

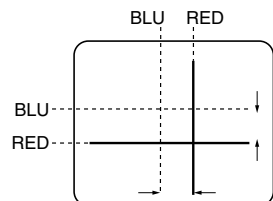
ADJUST THE ANGLE
(VERTICAL LINES)



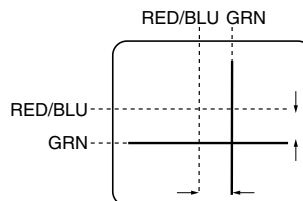
ROTATE TWO TABS
AT THE SAME TIME
(HORIZONTAL LINES)

ADJUSTMENT OF MAGNETS

Figure 2.

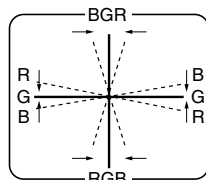


4-POLE MAGNETS MOVEMENT

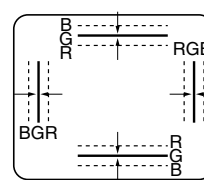


6-POLE MAGNETS MOVEMENT

Center Convergence by Convergence Magnets



INCLINE THE YOKE UP (OR DOWN)






INCLINE THE YOKE RIGHT (OR LEFT)

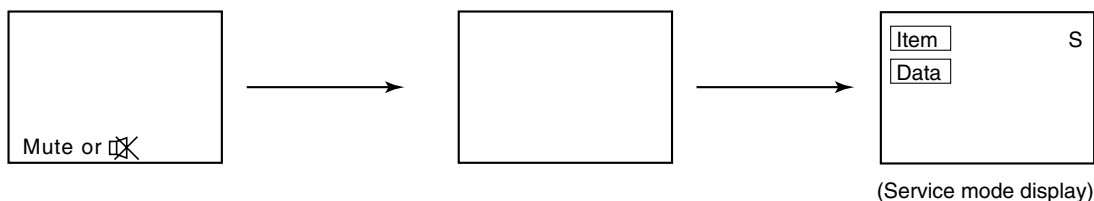
Circumference Convergence by DEF Yoke

Figure 3. Dot Movement Pattern

SERVICE MODE

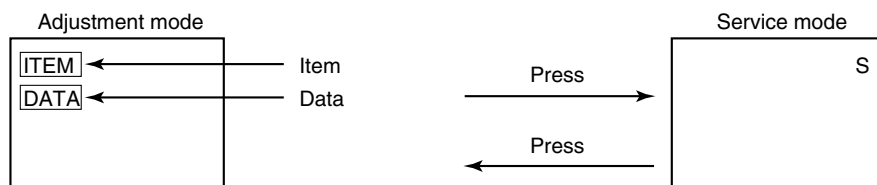
1. ENTERING TO SERVICE MODE

- 1) Press  button once on Remote Control.
- 2) Press  button again to keep pressing.
- 3) While pressing the  button, press MENU button on TV set.



2. DISPLAYING THE ADJUSTMENT MENU

- 1) Press MENU button on TV.



3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

A single horizontal line ON/OFF:

Test signal selection :

Selection of the adjustment items :

Change of the data value :

Adjustment menu mode ON/OFF :

Initialization of the memory (QA02) :

Reset the count of operating protect circuit to "00":

"RCUT" selection :

"GCUT" selection :

"BCUT" selection :


"CNTX" (or "SCNT") selection :



"COLC" selection :


"TNTC" selection :

Self diagnostic display ON/OFF :

INFO button (on Remote) or  button (on TV)

 button (on Remote)

Channel / (on TV or Remote)

Volume  +/- (on TV or Remote)

MENU button (on TV)

CALL + Channel button on TV ()

CALL + Channel button on TV ()

1 button

2 button

3 button

4 button

5 button - - - - Color thickness correction

6 button

9 button

note: Displayed differently as shown below, depending on the setting of the receiving color system.

COLP (PAL)

COLC (NTSC)

COLS (SECAM)

CAUTION : Never try to perform initialization unless you have changed the memory IC.

4. SELECTING THE ADJUSTING ITEMS

- 1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2.
(▼ button for reverse order)

Refer to table-2 for preset data of adjustment mode.
(See SETTING & ADJUSTING DATA on page 18)

5. ADJUSTING THE DATA

- 1) Pressing of VOLUME ▲ +/- button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

6. EXIT FROM SERVICE MODE

- 1) Pressing POWER button to turn off the TV once.

■ INITIALIZATION OF MEMORY DATA OF QA02

After replacing QA02, the following initialization is required.

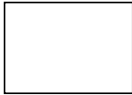
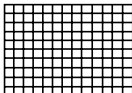
1. Enter the service mode, then select any register item.
2. Press and hold the CALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of QA02 has been completed.
3. Check the picture carefully. If necessary, adjust any adjustment item above.
Perform "Auto search Memory" on the owner's manual.

CAUTION: Never attempt to initialize the data unless QA02 has been replaced.

7. TEST SIGNAL SELECTION

- 1) Every pressing of -⊖ button on the Remote Control changes the built-in test patterns on screen as described below in SERVICE MODE.

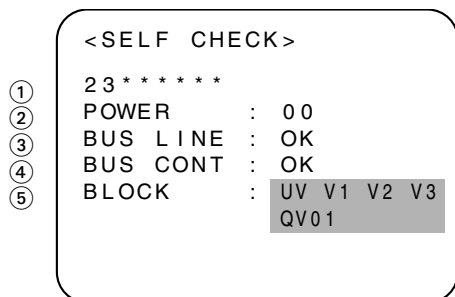
Signal off —→ NTSC signals (5 patterns)
 ↑ PAL signals (5 patterns) ←

Signals	Picture
<ul style="list-style-type: none"> • Red raster • Green raster • Blue raster • All White 	
<ul style="list-style-type: none"> • Black cross-hatch 	

* The signals marked with ■ are not usable to display in the Test signal for some model.

8. SELF DIAGNOSTIC FUNCTION

- 1) Press "9" button on Remote Control during display of adjustment menu in the service mode.
The diagnosis will begin to check if interface among IC's are executed properly.
- 2) During diagnosis, the following displays are shown.



- ① Part number of microcomputer (QA01)
- ② Operation number of protecting circuit ----"00" is normal.
When indication is other than "00", overcurrent apt to flow, and circuit parts may possibly be damaged.
- ③ BUS LINE CHECK ----"OK" is normal.
"SDA1-GND" ----- SDA-GND short circuit.
"SCL1-GND" ----- SCL-GND short circuit.
"SCL1-SDA1" ----- SCL-SDA short circuit.
- ④ BUS CONT ----"OK" is normal.
When indication shows "Q ○ ○ ○ NG", the device with the number may possibly be damaged.
- ⑤ BLOCK
UV : TV reception mode
V1 : VIDEO 1 input mode (→1)
V2 : VIDEO 2 input mode (→2)
V3 : VIDEO 3 input mode (→3)

Indicated color of mode now selected : Green and Red
Indicated color of other modes : White

Green : Normal

Red : The microcomputer operates to provide judgement of no video signal. The red color is still indicated though the signal is input, failure may exist in input signal line including QV01.

QV01 : In case of indication green ---Normal
In case of indication red with input signal---
Failure may exist in output line including QV01.


NOTE: Component which controls character display on screen is ICF01 (QT01) (TELETEXT IC.). If this display function fails to operate due to damage in ICF01 (QT01), self diagnosis procedure is as follows.

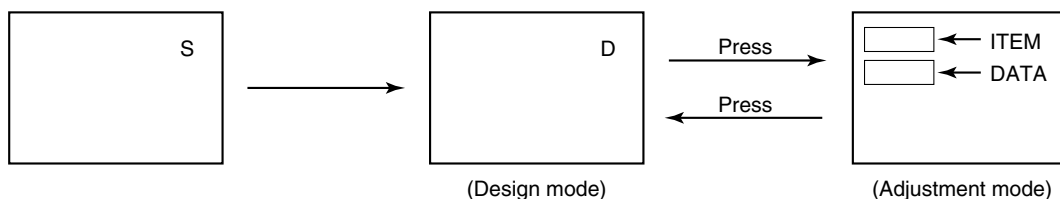
- (1) In case that power indicator is blinking with interval of 0.5 seconds; it means protecting circuit (Current limiter) is operating, and circuit components may possibly be damaged. Check related components.
- (2) In case that power indicator is blinking with interval of 1 second; Protecting circuit does not operate, but a part of Bus line does not operate normally. Check Bus line.

* The items marked with ■ are not usable to display in the SELF DIAGNOSTIC FUNCTION for some model.

DESIGN MODE

1. ENTERING TO DESIGN MODE

- 1) Select the Service mode.
- 2) While pressing  or CALL button on Remote and press MENU button on TV.
- 3) Press MENU button on TV.



When QA02 is initialized, items “OPT0” and “OPT1” of DESIGN MODE are set to the data of the representative model of this chassis family.

Therefore, because ON-SCREEN specification remains in the state of the representative of model. This model is required to reset the data of items “OPT0” and “OPT1”.

2. SELECTING THE ADJUSTING ITEMS

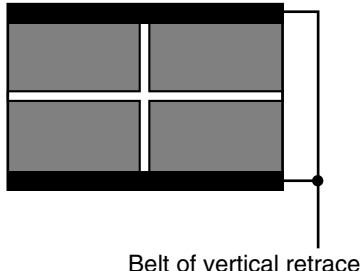
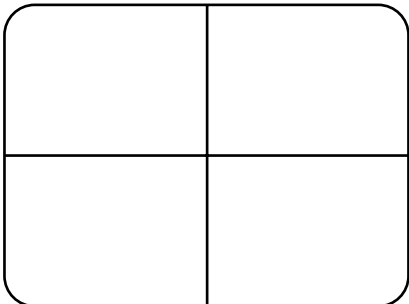
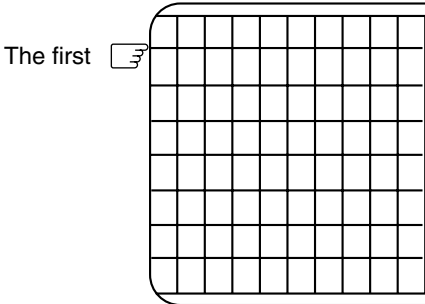
Every pressing of CHANNEL ▼ button in the design mode changes the adjustment items in the order of table-3.
(▲ button for reverse order)




Refer to table-3 for data of design mode.
(See SETTING & ADJUSTING DATA on page 18)

3. ADJUSTING THE DATA

Pressing of VOLUME ▲ or ▼ button will change the value of data.

ELECTRICAL ADJUSTMENTS

ITEM	ADJUSTMENT PROCEDURE
FOCUS VR ADJ	<ol style="list-style-type: none"> 1. Enter the service mode, then select any register item. 2. Press the TV/VIDEO button on the Remote until the black cross-bar pattern appears on the screen. 3. Adjust the FOCUS control (on T461) for well defined scanning lines on the picture screen.
SUB-BRIGHTNESS (BRTC) Note: Constrict the picture height until the vertical retrace line appears adjusting the item HIT (HEIGHT).	<ol style="list-style-type: none"> 1. Set CONTRAST to minimum, and BRIGHTNESS to center by adjusting user controls. 2. Set the TV in service mode to get white cross-bar of inside pattern. 3. Select BRTC (brightness correction), and adjust the \triangle - /+ button to reduce the value so that white portion of inside pattern slightly light. 4. Adjust \triangle - /+ button to increase the data value of BRTC, and set it just before the difference between the belt of vertical retrace and the border of black portion of inside pattern is visible. After that, return vertical height and contrast. 
HORIZONTAL POSITION ADJUSTMENT (HPOS) VERTICAL POSITION ADJUSTMENT (VPOS)	<ol style="list-style-type: none"> 1. Set the TV in service mode, and get black or white cross-bar signal with VIDEO button on remote hand unit. 2. Select either HPOS (Horizontal picture phase) or VPOS (Vertical picture phase) with CHANNEL \blacktriangle, \blacktriangledown buttons, and adjust horizontal or vertical picture position in the center of screen with VOLUME \triangle - /+ buttons. 
VERTICAL AMPLITUDE ADJUSTMENT (HIT)	<ol style="list-style-type: none"> 1. Set the TV in service mode, and get black or white cross-hatch signal with VIDEO button on remote hand unit. 2. Select HIT (Vertical amplitude) with CHANNEL \blacktriangle, \blacktriangledown buttons, and adjust vertical amplitude with VOLUME \triangle - /+ buttons so that vertical amplitude lacks a little. 3. Adjust vertical amplitude with VOLUME \triangle - /+ buttons so that the first bar on cross-hatch signal touches edge of screen. 

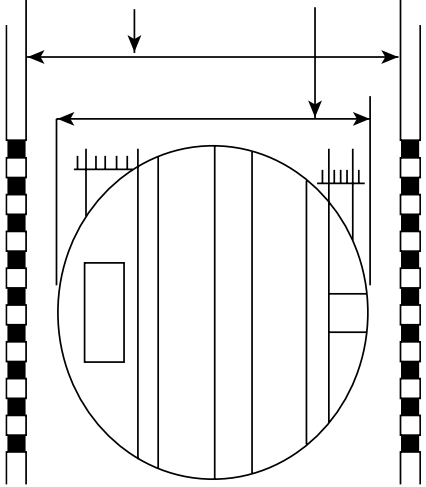
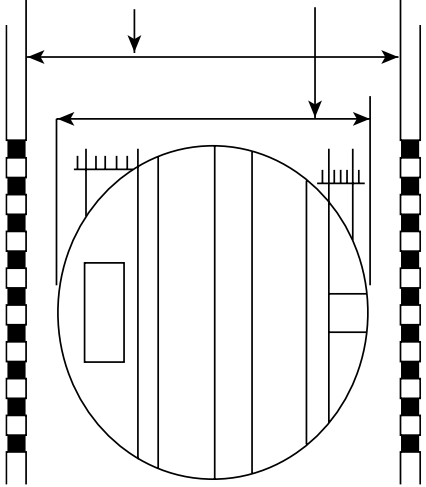
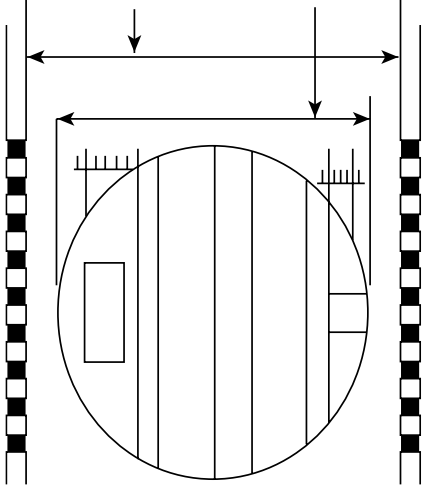
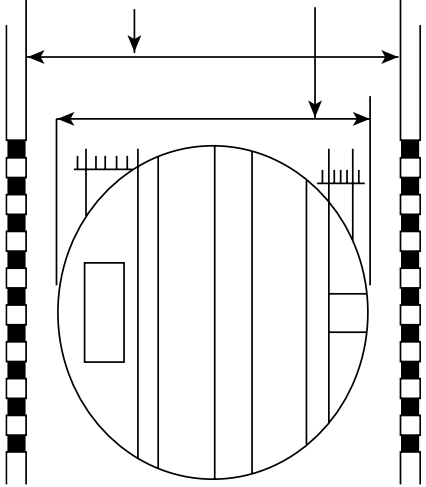
ITEM	ADJUSTMENT PROCEDURE
<p>WHITE BALANCE ADJUSTMENT</p> <ul style="list-style-type: none"> ● CUTOFF ADJUSTMENT (RCUT) (GCUT) (BCUT) ● DRIVE ADJUSTMENT (GDRV) (BDRV) 	<ol style="list-style-type: none"> 1. Set Contrast to 40, and brightness to +20 by picture control. 2. Set the TV in service mode, and get the inside W/B adjusting signal with VIDEO button. 3. Select RCUT, GCUT and BCUT with CHANNEL ▲, ▼ buttons, to set individual values to Initial reference data, and to set GDRV and BDRV to Initial reference data with VOLUME ▲ – /+ buttons (See page 18). 4. Press  button on the remote control and rotate Screen VR to get one slight horizontal line on screen. Note: Every pressing of  button provides Horizontal line picture and Normal picture alternately. 5. Press  button to release horizontal line picture, and select the two other colors which did not light in the above step with CHANNEL ▲, ▼ buttons. Then tap VOLUME ▲ – /+ buttons so that three colors slightly light in the same level. <p>※ To correct white balance in light area, select GDRV and BDRV with CHANNEL ▲, ▼ buttons to adjust.</p> <p>※ To correct white balance in dark area, perform fine adjustment of RCUT, GCUT and BCUT.</p> <div data-bbox="1005 604 1409 909" style="border: 1px solid black; border-radius: 10px; padding: 10px; margin-top: 20px;"> <div data-bbox="1075 611 1344 695" style="border: 1px solid black; padding: 5px; text-align: center;">Light area check (to show white)</div> <div data-bbox="1122 835 1299 898" style="text-align: center;">Dark area check (to show black)</div> </div>

(Reference Factory Adjustments)

Items	Names	Settings (User control)	Input signals	Measuring points	Adjusting methods	Adjusting standards
[SCNT]	Sub-contrast	Picture MODE-1 Screen size: WIDE Audio system: I	Sub-bright signal (PAL-I Signal)	TP46B	① Adjust the amplitude from the pedestal level to the white peak.	2.4 ± 0.1 Vp-p
[BRTC]	Sub-bright Center	Picture MODE-1 Screen size: WIDE	Sub-bright Signal	Screen adjustment	① Adjust the number of collapsed black lines of the sub-bright signal. ② To adjust after W/B, [SCNT] adjustment.	4±1.5 pieces Screen adjustment
[COLP]	Sub-color center PAL	Picture MODE-1 Screen size: WIDE	Sub-bright Signal (PAL)	TP46B	① Adjust the amplitude of B-Y. (Be sure to apply Y mute during adjustment)	1.2 ± 0.1 Vo-p
SCREEN VR [RCUT] [GCUT] [BCUT] [GDRV] [BDRV]	R Cutoff G Cutoff B Cutoff G Drive B Drive	Picture MODE-1 Screen size: WIDE [RCUT]: 40H [GCUT]: 40H [BCUT]: 40H [GDRV]: 35H [BDRV]: 35H		Screen adjustment	① Enter Horizontal Straight-line Mode. ② Gradually increase the screen VR until R, G, or B line starts to light up slightly. ③ Determine the screen VR adjustment position here. ④ Gradually increase remaining two screen VRs – except the line that lit up as mentioned in item ② above – until respective line starts to light up slightly. (Adjust until the screen becomes almost white.) ⑤ Exit from Horizontal Straight-line Mode. ⑥ Using CA100, repeat this adjustment until correct value is set to both the dark and bright parts.	Bright part (103cd/m ²) 8750K-0.002uv Dark part (17cd/m ²) 8750K-0.002uv Screen judgment (CA100)

Items	Names	Settings (User control)	Input signals	Measuring points	Adjusting methods	Adjusting standards
[SBY]	SECAM B-Y Black level		SECAM Color bar	TP01	① Vary [SBY] so that the level of mono- chrome signal part aligns with that of BLK.	$0 \pm 10 \text{ mV}$
[SRY]	SECAM R-Y Black level		SECAM Color bar	TP02	① Vary [SRY] so that the level of mono- chrome signal part aligns with that of BLK.	$0 \pm 10 \text{ mV}$
[COLS]	Sub-color Center SECAM	Picture MODE-1 Screen size: WIDE	SECAM Color bar	TP46B	① Adjust the amplitude of B-Y. (Be sure to apply Y mute during adjust- ment)	$1.6 \pm 0.1 \text{ Vo-p}$ (Pedestal to Peak)

1. Data adjustment

	Adjusting items	Adjusting methods	
Vertical	WIDE mode Vertical amplitude [HIT]	PAL WG Phillips Pattern, User adjustment standard Adjust the vertical amplitude by [HIT] so that both upper and lower flags will disappear from the screen.	
	Vertical position [VPS1]	PAL Phillips Pattern, User adjustment standard Adjust the vertical position [VPS1] with Phillips Pattern so that the vertical screen position will come to the center (see the right sketch).	
	Super-live mode Vertical amplitude [HIT]	PAL Phillips Pattern, User adjustment standard Adjust the vertical amplitude by [HIT] so that the top and bottom of the circle will touch the CPT mask with Philips Pattern (see the right sketch).	
	CINEMA mode Vertical amplitude [HIT]	Phillips Pattern, User adjustment standard Adjust the vertical amplitude by [HIT] so that the points shown in the right bottom sketch will touch the CRT mask (see the right sketch).	

2. Circuit adjustment (Volume/data adjustment)

No.	Target model names	Adjusting items	Adjusting methods
1	All models	Focus adjustment (1) HOR.FOCUS	Conditions: PAL Retoma signal WIDE mode, User adjustment standard Adjustment: Set it at the position, where the screen center becomes optimum focus and most counterclockwise, using the focus volume (F1) of the fly-back transformer (T461).
		Focus adjustment (2) VERT.FOCUS	Conditions: PAL Retoma signal WIDE mode, User adjustment standard Adjustment: Set it at the position, where the screen center becomes optimum focus and most counterclockwise, using the focus volume (F2) of the fly-back transformer (T461).
2	All models	Vertical position adjustment	Conditions: PAL WG Phillips Pattern WIDE mode, User adjustment standard Adjustment: Use [VPS1] and make adjustments so that the upper and lower positions will touch the mask. (Adjust and orient CPT either toward the south or north. If this is impossible, offset the difference.)

3. Data Adjustment

	Adjustment items	Adjustment methods
Horizontal	<p>WIDE mode (During 4:3)</p> <p>Horizontal phase: [HPOS] Horizontal amplitude: [WIDE] Side DPC: [PARA] Trapezoidal distortion: [TRAP] Corner distortion: [CNR] Center warp: [CPAR] Parallelogram distortion: [CSAW]</p>	<p>Use PAL WG Phillips Pattern and adjust the horizontal amplitude to fit the mask to the frames of left and right flags in WIDE mode.</p> <p>Use PAL WG Phillips Pattern and adjust so that the side-pin and trapezoidal distortions become optimum in WIDE mode. Use the horizontal phase [HPOS] for the horizontal screen position, and make adjustments so that the position will become a center.</p> <p>Check and confirm the side-pin at the mode of 4:3.</p> <p>(If necessary, examine the grade of side panel at the mode of 4:3 and reconfirm)</p> <p>• Note: In case distortion adjustment is insufficient by the [PARA] [TRAP] adjustments, make adjustments by using the data of [CNR], [CPAR], and [CSAW].</p> <p>① Decrease [CPAR] in case of the distortion shown in Fig. (a). On the contrary, increase [CPAR] in case of the distortion shown in Fig. (b).</p> <p>② Decrease [CSAW] in case of the distortion shown in Fig. (c). On the contrary, increase [CSAW] in case of the distortion shown in Fig. (d).</p>
	<p>Super-live mode</p> <p>Horizontal amplitude: [WIDE] Side DPC: [PARA] Trapezoidal distortion: [TRAP] Horizontal phase [HPOS] Corner distortion: [CNR]</p>	<p>Use PAL Phillips Pattern and fit the frames of the left and right flags to the mask in Super-live and WIDE modes.</p> <p>Make adjustments to achieve optimum side-pin distortion and trapezoidal distortion.</p> <p>If any further adjustment is required, use the horizontal phase [HPOS] and corner distortion [CNR] for adjustment.</p>
	<p>CINEMA mode</p> <p>Horizontal amplitude: [WIDE] Side DPC: [PARA] Trapezoidal distortion: [TRAP] Horizontal phase: [HPOS] Corner distortion: [CNR]</p>	<p>Use PAL Phillips Pattern and adjust the horizontal amplitude to fit the mask to the frames of left and right flags in CINEMA mode.</p> <p>Make adjustments to achieve optimum side-pin distortion and trapezoidal distortion.</p> <p>If any further adjustment is required, use the horizontal phase [HPOS] and corner distortion [CNR] for adjustment.</p>

CIRCUIT CHECK

HIGH VOLTAGE CHECK

CAUTION: There is no HIGH VOLTAGE ADJUSTMENT on this chassis. Checking should be done following the steps below.

1. Connect an accurate high voltage meter to the second anode of the picture tube.
2. Turn on the receiver. Set the BRIGHTNESS and CONTRAST controls to minimum (zero beam current).
3. High voltage must be measured below (B) kV.

Refer to table-1 for high voltage (B).
(See SETTING & ADJUSTING DATA on page 18)

4. Vary the BRIGHTNESS control to both extremes to be sure the high voltage does not exceed the limit under any conditions.

CHAPTER 2 SPECIFIC INFORMATIONS

SETTING & ADJUSTING DATA

【 SAFETY INSTRUCTIONS 】

		32"
HIGH VOLTAGE AT ZERO BEAM:	(A)	31.9 kV
MAX HIGH VOLTAGE:	(B)	34.0 kV
AC VOLTAGE	(C)	220~240 V

Table-1

【 SERVICE MODE 】

ADJUSTING ITEMS AND DATAS IN THE SERVICE MODE:

Item	Adjustment	Reference data	Item	Adjustment	Reference data
RCUT	R CUTOFF (B/W)	40H	HPOS	H-POSITION (WIDE)	10H
GCUT	G CUTOFF (B/W)	40H	VPOS	V-POSITION (WIDE)	00H
BCUT	B CUTOFF (B/W)	40H	HIT	HEIGHT (WIDE)	3CH
GDRV	R DRIVE	35H	VLIN	V-LINEARITY (WIDE)	0EH
BDRV	B DRIVE	35H	VSC	V-S CORRECTION (WIDE)	28H
BRTC	SUB BRIGHT CEN	80H	VPS2	V-SHIFT (WIDE)	40H
TNTC	SUB TINT CEN	20H	WID	PICTURE WIDTH (WIDE)	1CH
COLP	SUB COLOR CEN PAL	44H	PARA	E-W PARABOLA (WIDE)	18H
COLS	SUB COLOR CEN SECAM	44H	CNR	E-W CORNER (WIDE)	0FH
SCNT	SUB CONTRAST	08H	TRAP	TRAPEZIUM (WIDE)	33H
SRY	SECAM R-Y	07H	VFC	V-F CORRECTION (WIDE)	0FH
SBY	SECAM B-Y	01H			

Table-2

【 DESIGN MODE 】

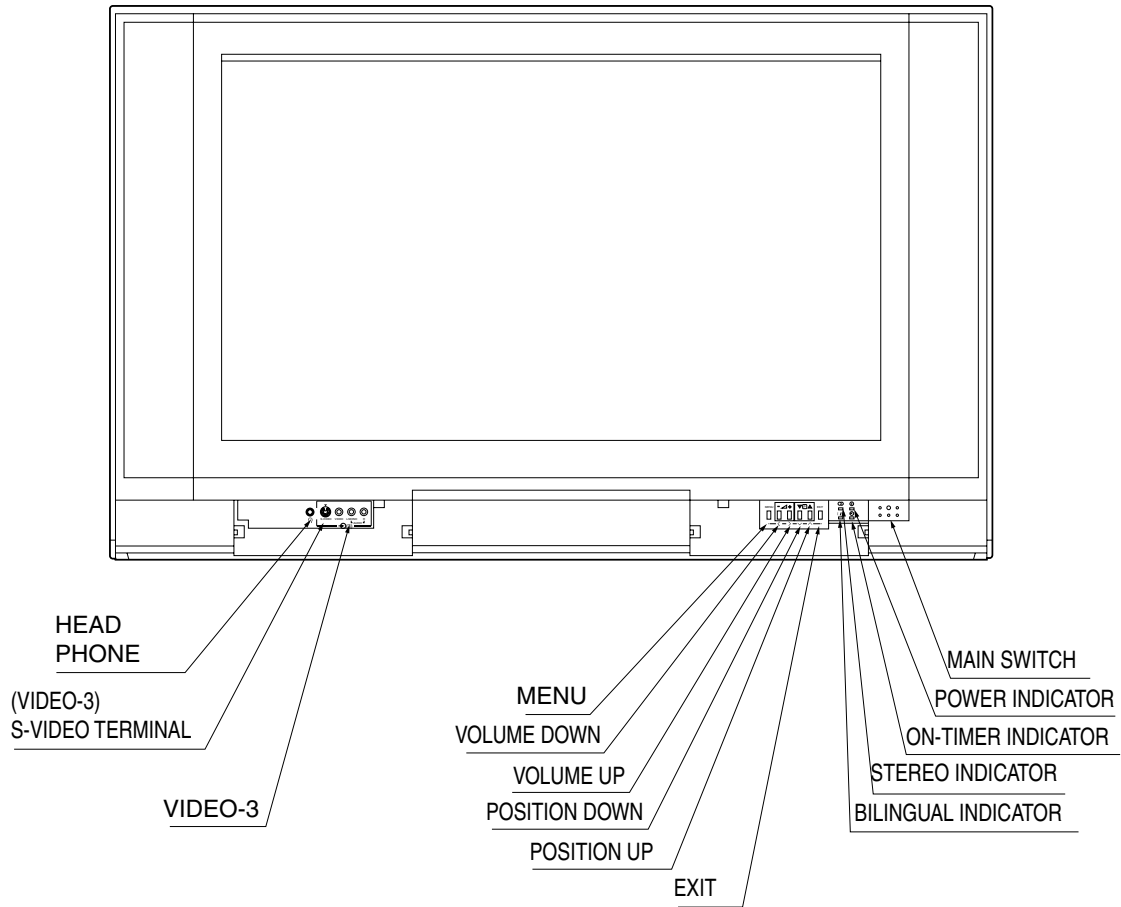
ADJUSTING ITEMS AND DATAS IN THE DESIGN MODE:

Item	Name of adjustment		Data	Remarks
		Preset Data		
	* There are no adjusting item in the DESIGN MODE.			

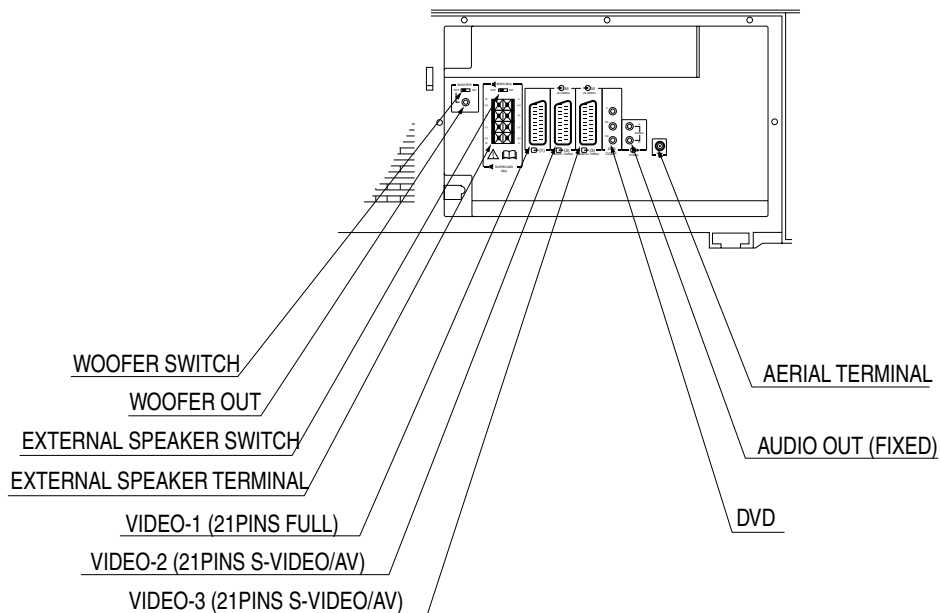
Table-3

LOCATION OF CONTROLS

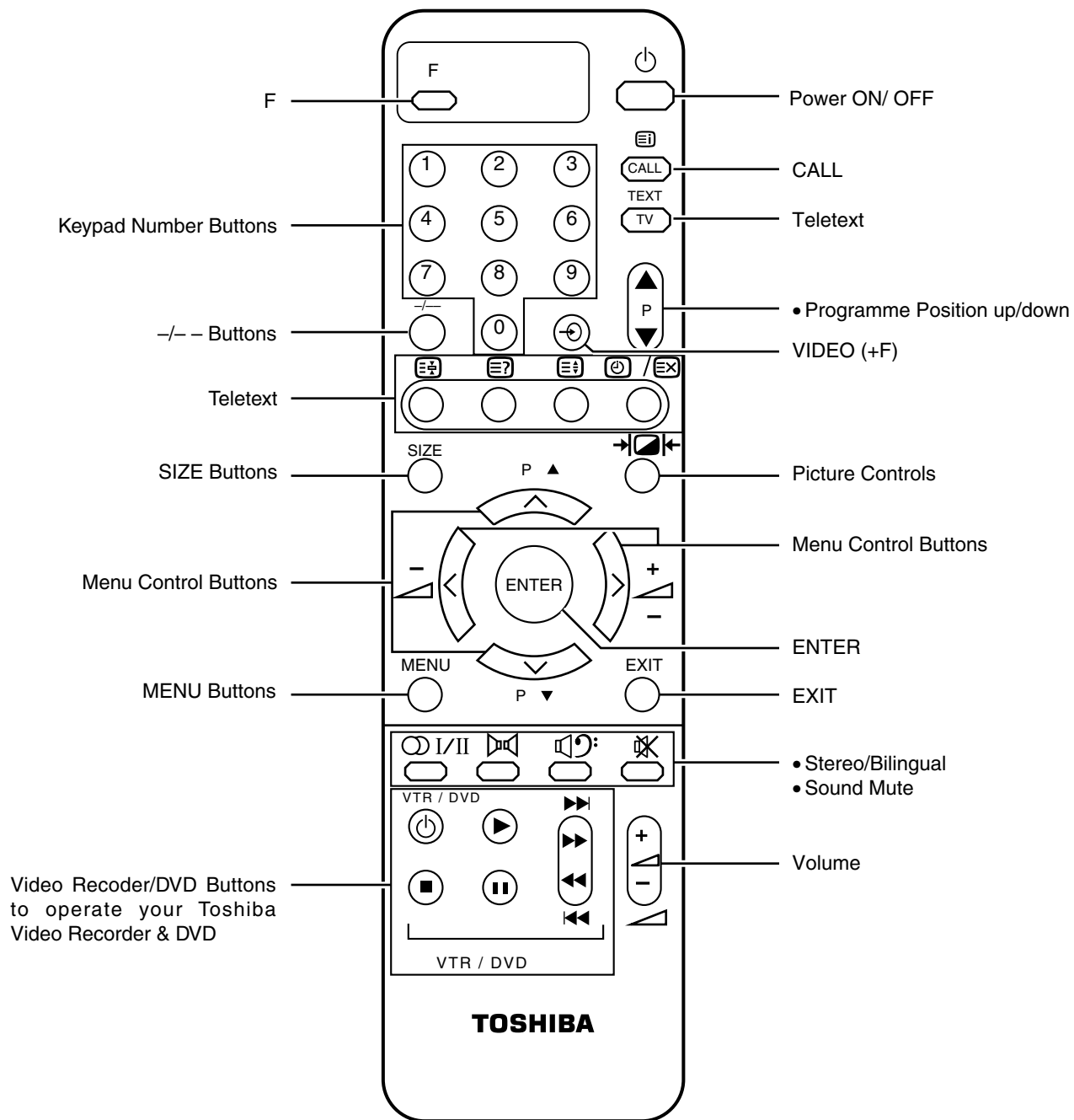
Front



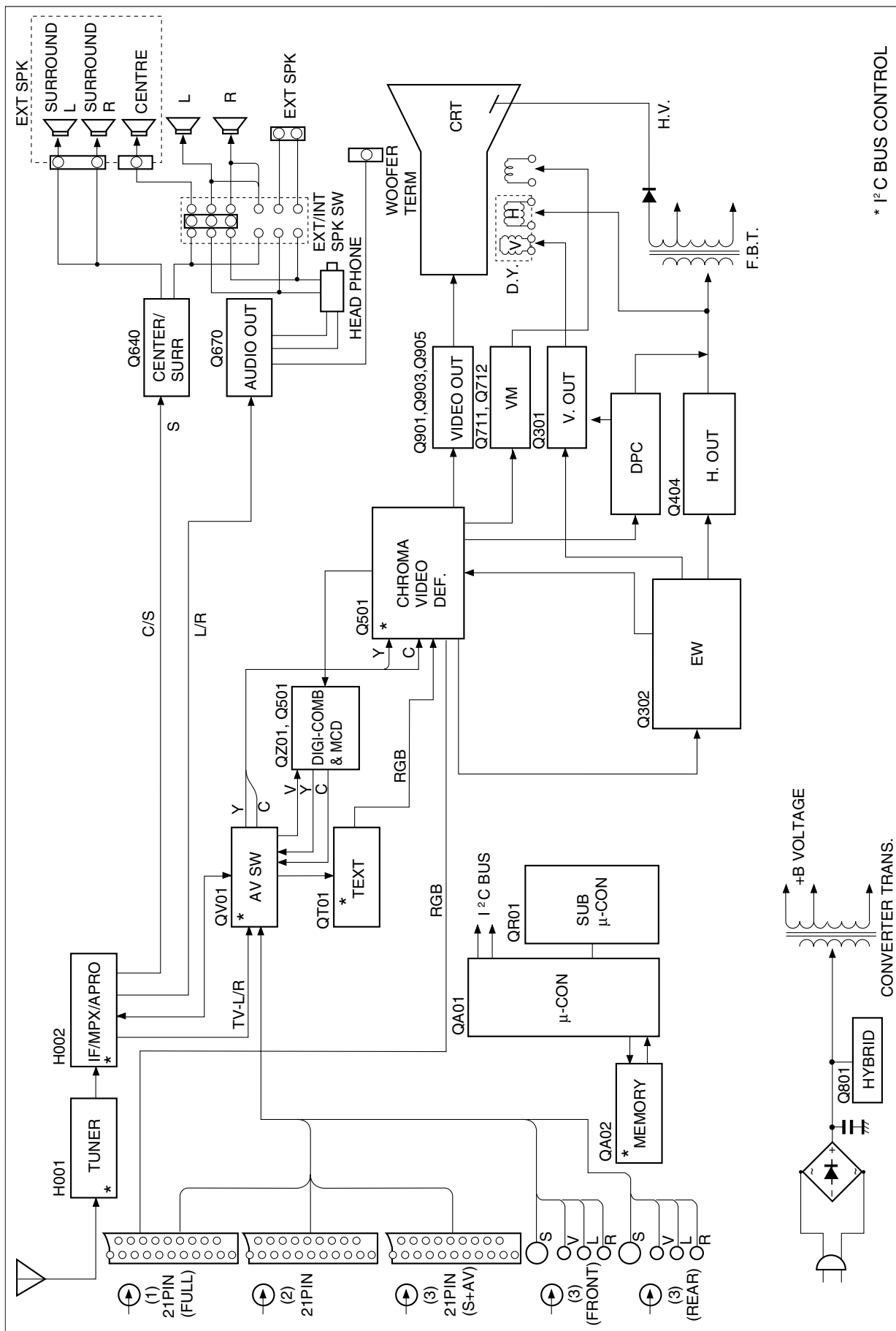
Rear terminals



Remote Controller



CIRCUIT BLOCK DIAGRAM



* I²C BUS CONTROL

CHASSIS AND CABINET REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE. Do not degrade the safety of the receiver through improper servicing.

NOTICE:

- The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.
- The PC board assembly with * mark is no longer available after the end of the production.

Models : 32Z17B

Capacitors CD : Ceramic Disk PF : Plastic Film EL : Electrolytic
Resistors CF : Carbon Film CC : Carbon Composition MF : Metal Film
 OMF : Oxide Metal Film VR : Variable Resistor FR : Fusible Resistor
(All CD and PF capacitors are $\pm 5\%$, 50V and all resistors, $\pm 5\%$, 1/6W unless otherwise noted.)

Location No.	Part No.	Description
CAPACITORS		
C102	24763221	EL, 220 μ F, $\pm 20\%$, 16V
C105	24212102	CD, 1000pF, $\pm 10\%$
C106	24797100	EL, 10 μ F, $\pm 20\%$, 50V
C108	24794221	EL, 220 μ F, $\pm 20\%$, 16V
C109	24232103	CD, 0.01 μ F, +80%, -20%
C110	24797229	EL, 2.2 μ F, $\pm 20\%$, 50V
C111	24797229	EL, 2.2 μ F, $\pm 20\%$, 50V
C115	24232103	CD, 0.01 μ F, +80%, -20%
C201	24567104	PF, 0.1 μ F
C202	24232103	CD, 0.01 μ F, +80%, -20%
C203	24567104	PF, 0.1 μ F
C204	24797010	EL, 1 μ F, $\pm 20\%$, 50V
C205	24797229	EL, 2.2 μ F, $\pm 20\%$, 50V
C206	24797220	EL, 22 μ F, $\pm 20\%$, 50V
C214	24567334	PF, 0.33 μ F
C215	24436221	CD, 220pF
C219	24436100	CD, 10pF, ± 0.25 pF
C220	24436100	CD, 10pF, ± 0.25 pF
C221	24436100	CD, 10pF, ± 0.25 pF
C229	24092398	CD, 0.1 μ F, +80%, -20%, 25V
C230	24232103	CD, 0.01 μ F, +80%, -20%
C232	24092398	CD, 0.1 μ F, +80%, -20%, 25V
C261	24794100	EL, 10 μ F, $\pm 20\%$, 16V
C302	24214471	CD, 470pF, $\pm 10\%$, 500V
C303	24214471	CD, 470pF, $\pm 10\%$, 500V
C305	24795222	EL, 2200 μ F, $\pm 20\%$, 25V
C308	24797221	EL, 220 μ F, $\pm 20\%$, 50V
C310	24795222	EL, 2200 μ F, $\pm 20\%$, 25V
C313	24082057	PF, 0.22 μ F, 100V
C314	24793101	EL, 100 μ F, $\pm 20\%$, 10V
C315	24212222	CD, 2200pF, $\pm 10\%$
C315	24797478	EL, 0.47 μ F, $\pm 20\%$, 50V
C316	24795221	EL, 220 μ F, $\pm 20\%$, 25V
C318	24794471	EL, 470 μ F, $\pm 20\%$, 16V
C320	24795221	EL, 220 μ F, $\pm 20\%$, 25V
C322	24617912	EL, 2.2 μ F, $\pm 10\%$, 50V
C323	24567474	PF, 0.47 μ F
C325	24590223	PF, 0.022 μ F
C326	24797010	EL, 1 μ F, $\pm 20\%$, 50V
C327	24794471	EL, 470 μ F, $\pm 20\%$, 16V

Location No.	Part No.	Description
C329	24567224	PF, 0.22 μ F
C332	24212102	CD, 1000pF, $\pm 10\%$
C341	24567474	PF, 0.47 μ F
C366	24082049	PF, 0.047 μ F, 100V
C370	24794100	EL, 10 μ F, $\pm 20\%$, 16V
C371	24797100	EL, 10 μ F, $\pm 20\%$, 50V
C372	24797470	EL, 47 μ F, $\pm 20\%$, 50V
C373	24797470	EL, 47 μ F, $\pm 20\%$, 50V
C390	24567474	PF, 0.47 μ F
C391	24567474	PF, 0.47 μ F
C392	24567474	PF, 0.47 μ F
C393	24567474	PF, 0.47 μ F
C403	24590393	PF, 0.039 μ F
C404	24797229	EL, 2.2 μ F, $\pm 20\%$, 50V
C410	24214471	CD, 470pF, $\pm 10\%$, 500V
C413	24214821	CD, 820pF, $\pm 10\%$, 500V
C416	24678010	EL, 1 μ F, $\pm 20\%$, 200V
C417	24214391	CD, 390pF, $\pm 10\%$, 500V
C420	24794101	EL, 100 μ F, $\pm 20\%$, 16V
C423	24829433	PF, 0.043 μ F, 400V
C430	24232103	CD, 0.01 μ F, +80%, -20%
C430	24820472	PF, 0.0047 μ F, 630V
C431	24232103	CD, 0.01 μ F, +80%, -20%
C431	24763102	EL, 1000 μ F, $\pm 20\%$, 16V
C440	24082490	PF, 8700pF, $\pm 3\%$, 1500V
C442	24082670	PF, 0.36 μ F, 250V
C444	24082517	PF, 0.0051 μ F, 1800V
C445	24828473	PF, 0.047 μ F, 200V
C446	24679330	EL, 33 μ F, $\pm 20\%$, 250V
C447	24829153	PF, 0.015 μ F, 400V
C448	24640908	EL, 33 μ F, $\pm 20\%$, 160V
C460	24073092	EL, 330 μ F, $\pm 20\%$, 50V
C462	24794222	EL, 2200 μ F, $\pm 20\%$, 16V
C463	24212222	CD, 2200pF, $\pm 10\%$
C464	24640900	EL, 4.7 μ F, $\pm 20\%$, 100V
C466	24820163	PF, 0.016 μ F, 630V
C470	24794470	EL, 47 μ F, $\pm 20\%$, 16V
C471	24085988	EL, 1.0 μ F, $\pm 20\%$, 50V, Non-Polar
C472	24567474	PF, 0.47 μ F
C473	24669010	EL, 1 μ F, $\pm 20\%$, 50V

Location No.	Part No.	Description
C475	24820103	PF, 0.01 μ F, 630V
C476	24794220	EL, 22 μ F, \pm 20%, 16V
C477	24567104	PF, 0.1 μ F
C479	24214471	CD, 470pF, \pm 10%, 500V
C481	24085988	EL, 1.0 μ F, \pm 20%, 50V, Non-Polar
C490	24082983	PF, 1.5 μ F, 250V
C491	24082989	PF, 2.7 μ F, 250V
C492	24082659	PF, 0.12 μ F, 250V
C494	24082973	PF, 0.56 μ F, 250V
C495	24092343	CD, 680pF, \pm 10%, 2kV
C496	24092343	CD, 680pF, \pm 10%, 2kV
C501	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
C502	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
C502	24232103	CD, 0.01 μ F, +80%, -20%
C503	24794221	EL, 220 μ F, \pm 20%, 16V
C503	24794470	EL, 47 μ F, \pm 20%, 16V
C504	24814103	Chip, 0.01 μ F, +80%, -20%
C505	24794470	EL, 47 μ F, \pm 20%, 16V
C506	24814103	Chip, 0.01 μ F, +80%, -20%
C507	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
C508	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
C508	24797010	EL, 1 μ F, \pm 20%, 50V
C509	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
C509	24794101	EL, 100 μ F, \pm 20%, 16V
C510	24794101	EL, 100 μ F, \pm 20%, 16V
C510	24797479	EL, 4.7 μ F, \pm 20%, 50V
C511	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
C511	24232103	CD, 0.01 μ F, +80%, -20%
C512	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
C513	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
C513	24232103	CD, 0.01 μ F, +80%, -20%
C514	24567104	PF, 0.1 μ F
C514	24794470	EL, 47 μ F, \pm 20%, 16V
C515	24567104	PF, 0.1 μ F
C515	24814103	Chip, 0.01 μ F, +80%, -20%
C516	24774100	Chip, 10pF, \pm 0.5pF, CH
C517	24797478	EL, 0.47 μ F, \pm 20%, 50V
C518	24814103	Chip, 0.01 μ F, +80%, -20%
C519	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
C520	24212102	CD, 1000pF, \pm 10%
C520	24797229	EL, 2.2 μ F, \pm 20%, 50V
C521	24212102	CD, 1000pF, \pm 10%
C521	24567223	PF, 0.022 μ F
C522	24814103	Chip, 0.01 μ F, +80%, -20%
C555	24092398	CD, 0.1 μ F, +80%, -20%, 25V
C556	24797010	EL, 1 μ F, \pm 20%, 50V
C608	24073016	EL, 100 μ F, \pm 20%, 10V
C613	24794471	EL, 470 μ F, \pm 20%, 16V
C631	24567474	PF, 0.47 μ F
C631	24795470	EL, 47 μ F, \pm 20%, 25V
C632	24797100	EL, 10 μ F, \pm 20%, 50V
C633	24781102	Chip, 1000pF, SL
C634	24206220	EL, 22 μ F, \pm 20%, 50V
C635	24814103	Chip, 0.01 μ F, +80%, -20%
C636	24206100	EL, 10 μ F, \pm 20%, 50V
C637	24765221	EL, 220 μ F, \pm 20%, 35V
C638	24814103	Chip, 0.01 μ F, +80%, -20%
C639	24590103	PF, 0.01 μ F
C640	24797220	EL, 22 μ F, \pm 20%, 50V
C641	24206100	EL, 10 μ F, \pm 20%, 50V
C641	24669010	EL, 1 μ F, \pm 20%, 50V
C642	24206478	EL, 0.47 μ F, \pm 20%, 50V
C643	24781102	Chip, 1000pF, SL

Location No.	Part No.	Description
C644	24797010	EL, 1 μ F, \pm 20%, 50V
C645	24795470	EL, 47 μ F, \pm 20%, 25V
C647	24591102	PF, 1000pF
C648	24591681	PF, 680pF
C649	24797229	EL, 2.2 μ F, \pm 20%, 50V
C650	24668102	EL, 1000 μ F, \pm 20%, 35V
C651	24668471	EL, 470 μ F, \pm 20%, 35V
C652	24668471	EL, 470 μ F, \pm 20%, 35V
C654	24591124	PF, 0.12 μ F
C655	24591124	PF, 0.12 μ F
C656	24232103	CD, 0.01 μ F, +80%, -20%
C657	24797229	EL, 2.2 μ F, \pm 20%, 50V
C658	24795470	EL, 47 μ F, \pm 20%, 25V
C661	24797479	EL, 4.7 μ F, \pm 20%, 50V
C662	24797100	EL, 10 μ F, \pm 20%, 50V
C663	24797100	EL, 10 μ F, \pm 20%, 50V
C665	24797010	EL, 1 μ F, \pm 20%, 50V
C666	24797010	EL, 1 μ F, \pm 20%, 50V
C667	24212102	CD, 1000pF, \pm 10%
C668	24212102	CD, 1000pF, \pm 10%
C669	24797330	EL, 33 μ F, \pm 20%, 50V
C670	24797330	EL, 33 μ F, \pm 20%, 50V
C670	24814103	Chip, 0.01 μ F, +80%, -20%
C671	24797100	EL, 10 μ F, \pm 20%, 50V
C671	24814103	Chip, 0.01 μ F, +80%, -20%
C672	24795470	EL, 47 μ F, \pm 20%, 25V
C672	24814103	Chip, 0.01 μ F, +80%, -20%
C673	24781102	Chip, 1000pF, SL
C673	24795470	EL, 47 μ F, \pm 20%, 25V
C674	24781102	Chip, 1000pF, SL
C674	24797100	EL, 10 μ F, \pm 20%, 50V
C675	24795470	EL, 47 μ F, \pm 20%, 25V
C677	24590102	PF, 1000pF
C677	24814103	Chip, 0.01 μ F, +80%, -20%
C678	24590102	PF, 1000pF
C678	24781102	Chip, 1000pF, SL
C679	24781102	Chip, 1000pF, SL
C680	24668102	EL, 1000 μ F, \pm 20%, 35V
C681	24668102	EL, 1000 μ F, \pm 20%, 35V
C681	24781102	Chip, 1000pF, SL
C682	24668102	EL, 1000 μ F, \pm 20%, 35V
C682	24781102	Chip, 1000pF, SL
C685	24591124	PF, 0.12 μ F
C687	24232103	CD, 0.01 μ F, +80%, -20%
C688	24794220	EL, 22 μ F, \pm 20%, 16V
C689	24591124	PF, 0.12 μ F
C699	24797220	EL, 22 μ F, \pm 20%, 50V
C704	24591822	PF, 8200pF
C705	24797229	EL, 2.2 μ F, \pm 20%, 50V
C707	24794470	EL, 47 μ F, \pm 20%, 16V
C712	24794470	EL, 47 μ F, \pm 20%, 16V
C713	24790100	EL, 10 μ F, \pm 20%, 160V
C714	24436101	CD, 100pF
C715	24214472	CD, 4700pF, \pm 10%, 500V
C716	24436101	CD, 100pF
C717	24214472	CD, 4700pF, \pm 10%, 500V
C718	24794470	EL, 47 μ F, \pm 20%, 16V
C719	24435151	CD, 150pF, 500V
C720	24790100	EL, 10 μ F, \pm 20%, 160V
C721	24794470	EL, 47 μ F, \pm 20%, 16V
△ C801	24503055	PF, 0.22 μ F, \pm 20%, 275V
△ C802	24503055	PF, 0.22 μ F, \pm 20%, 275V
C805	24092281	CD, 4700pF, \pm 20%, AC250V
C806	24092281	CD, 4700pF, \pm 20%, AC250V

Location No.	Part No.	Description
C808	24667221	EL, 220 μ F, \pm 20%, 25V
C810	24086063	EL, 330 μ F, \pm 20%, 400V
C810	24763102	EL, 1000 μ F, \pm 20%, 16V
△ C813	24092555	CD, 1000pF, \pm 20%, AC250V
△ C814	24092555	CD, 1000pF, \pm 20%, AC250V
C817	24092339	CD, 330pF, \pm 10%, 2kV
C818	24095931	PF, 2200pF, 1250V
C819	24676220	EL, 22 μ F, \pm 20%, 100V
C821	24214471	CD, 470pF, \pm 10%, 500V
C822	24567474	PF, 0.47 μ F
C823	24214471	CD, 470pF, \pm 10%, 500V
C829	24590332	PF, 3300pF
C831	24794470	EL, 47 μ F, \pm 20%, 16V
C833	24669100	EL, 10 μ F, \pm 20%, 50V
C841	24669100	EL, 10 μ F, \pm 20%, 50V
C842	24669100	EL, 10 μ F, \pm 20%, 50V
C843	24567104	PF, 0.1 μ F
C846	24567224	PF, 0.22 μ F
C884	24086916	EL, 330 μ F, \pm 20%, 160V
C885	24214471	CD, 470pF, \pm 10%, 500V
C887	24214471	CD, 470pF, \pm 10%, 500V
C889	24669222	EL, 2200 μ F, \pm 20%, 50V
C890	24667222	EL, 2200 μ F, \pm 20%, 25V
C891	24667222	EL, 2200 μ F, \pm 20%, 25V
C893	24092337	CD, 220pF, \pm 10%, 2kV
C895	24669470	EL, 47 μ F, \pm 20%, 50V
C896	24214471	CD, 470pF, \pm 10%, 500V
C898	24567224	PF, 0.22 μ F
C899	24214471	CD, 470pF, \pm 10%, 500V
C902	24092345	CD, 1000pF, \pm 10%, 2kV
C904	24436271	CD, 270pF
C905	24436271	CD, 270pF
C907	24436271	CD, 270pF
C909	24679220	EL, 22 μ F, \pm 20%, 250V
C910	24797478	EL, 0.47 μ F, \pm 20%, 50V
C911	24203100	EL, 10 μ F, \pm 20%, 16V
C912	24794471	EL, 470 μ F, \pm 20%, 16V
C913	24794101	EL, 100 μ F, \pm 20%, 16V
C914	24212103	CD, 0.01 μ F, \pm 10%
C915	24092398	CD, 0.1 μ F, +80%, -20%, 25V
C920	24591104	PF, 0.1 μ F
C921	24591104	PF, 0.1 μ F
C930	24214101	CD, 100pF, \pm 10%, 500V
C931	24214101	CD, 100pF, \pm 10%, 500V
C4376	24590103	PF, 0.01 μ F
C4447	24590103	PF, 0.01 μ F
C4461	24567104	PF, 0.1 μ F
C4490	24082664	PF, 0.2 μ F, 250V
C4491	24082664	PF, 0.2 μ F, 250V
CA09	24212101	CD, 100pF, \pm 10%
CA10	24212101	CD, 100pF, \pm 10%
CA12	24212101	CD, 100pF, \pm 10%
CA13	24436101	CD, 100pF
CA15	24212101	CD, 100pF, \pm 10%
CA16	24212101	CD, 100pF, \pm 10%
CA17	24212101	CD, 100pF, \pm 10%
CA33	24232103	CD, 0.01 μ F, +80%, -20%
CA42	24794100	EL, 10 μ F, \pm 20%, 16V
CA43	24232103	CD, 0.01 μ F, +80%, -20%
CA44	24232103	CD, 0.01 μ F, +80%, -20%
CA68	24794100	EL, 10 μ F, \pm 20%, 16V
CA69	24232103	CD, 0.01 μ F, +80%, -20%
CB01	24794470	EL, 47 μ F, \pm 20%, 16V
CB02	24567104	PF, 0.1 μ F

Location No.	Part No.	Description
CB30	24794100	EL, 10 μ F, \pm 20%, 16V
CB31	24232103	CD, 0.01 μ F, +80%, -20%
CB32	24567474	PF, 0.47 μ F
CB33	24212472	CD, 4700pF, \pm 10%
CB37	24436150	CD, 15pF
CB40	24232103	CD, 0.01 μ F, +80%, -20%
CB45	24232103	CD, 0.01 μ F, +80%, -20%
CB46	24794100	EL, 10 μ F, \pm 20%, 16V
CB90	24232103	CD, 0.01 μ F, +80%, -20%
CC09	24814103	Chip, 0.01 μ F, +80%, -20%
CC10	24814103	Chip, 0.01 μ F, +80%, -20%
CC15	24232103	CD, 0.01 μ F, +80%, -20%
CC16	24474102	CD, 1000pF, \pm 10%
CC20	24781220	Chip, 22pF, SL
CC25	24232103	CD, 0.01 μ F, +80%, -20%
CC26	24232103	CD, 0.01 μ F, +80%, -20%
CC27	24232103	CD, 0.01 μ F, +80%, -20%
CC28	24781102	Chip, 1000pF, SL
CC30	24474102	CD, 1000pF, \pm 10%
CC45	24781102	Chip, 1000pF, SL
CC46	24781102	Chip, 1000pF, SL
CR01	24797010	EL, 1 μ F, \pm 20%, 50V
CR02	24232103	CD, 0.01 μ F, +80%, -20%
CR09	24567104	PF, 0.1 μ F
CR10	24794470	EL, 47 μ F, \pm 20%, 16V
CR11	24567104	PF, 0.1 μ F
CR12	24567104	PF, 0.1 μ F
CR13	24567104	PF, 0.1 μ F
CR14	24567104	PF, 0.1 μ F
CR18	24567104	PF, 0.1 μ F
CR19	24567104	PF, 0.1 μ F
CR20	24567104	PF, 0.1 μ F
CS01	24797229	EL, 2.2 μ F, \pm 20%, 50V
CS02	24797229	EL, 2.2 μ F, \pm 20%, 50V
CS03	24797229	EL, 2.2 μ F, \pm 20%, 50V
CS04	24797229	EL, 2.2 μ F, \pm 20%, 50V
CS05	24206229	EL, 2.2 μ F, \pm 20%, 50V
CS06	24206229	EL, 2.2 μ F, \pm 20%, 50V
CS07	24797229	EL, 2.2 μ F, \pm 20%, 50V
CS08	24797229	EL, 2.2 μ F, \pm 20%, 50V
CS09	24797229	EL, 2.2 μ F, \pm 20%, 50V
CS10	24797229	EL, 2.2 μ F, \pm 20%, 50V
CS12	24781102	Chip, 1000pF, SL
CS13	24781102	Chip, 1000pF, SL
CS14	24797100	EL, 10 μ F, \pm 20%, 50V
CS15	24797100	EL, 10 μ F, \pm 20%, 50V
CS17	24794100	EL, 10 μ F, \pm 20%, 16V
CS18	24794100	EL, 10 μ F, \pm 20%, 16V
CS19	24797478	EL, 0.47 μ F, \pm 20%, 50V
CS22	24794100	EL, 10 μ F, \pm 20%, 16V
CS23	24794100	EL, 10 μ F, \pm 20%, 16V
CT01	24794221	EL, 220 μ F, \pm 20%, 16V
CT02	24232103	CD, 0.01 μ F, +80%, -20%
CT03	24232103	CD, 0.01 μ F, +80%, -20%
CT04	24794101	EL, 100 μ F, \pm 20%, 16V
CT05	24567104	PF, 0.1 μ F
CT06	24794470	EL, 47 μ F, \pm 20%, 16V
CT07	24794100	EL, 10 μ F, \pm 20%, 16V
CT08	24353560	CD, 56pF, CH
CT09	24353560	CD, 56pF, CH
CT10	24794470	EL, 47 μ F, \pm 20%, 16V
CT11	24567104	PF, 0.1 μ F
CT12	24794470	EL, 47 μ F, \pm 20%, 16V
CT13	24567104	PF, 0.1 μ F

Location No.	Part No.	Description
CT14	24567104	PF, 0.1 μ F
CT17	24567104	PF, 0.1 μ F
CT20	24232103	CD, 0.01 μ F, +80%, -20%
CT21	24794100	EL, 10 μ F, \pm 20%, 16V
CV02	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
CV03	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
CV04	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
CV05	24814103	Chip, 0.01 μ F, +80%, -20%
CV06	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
CV08	24794101	EL, 100 μ F, \pm 20%, 16V
CV09	24815473	Chip, 0.047 μ F, \pm 10%
CV10	24794220	EL, 22 μ F, \pm 20%, 16V
CV12	24092178	Chip, 0.1 μ F, \pm 10%, 25V
CV14	24781102	Chip, 1000pF, SL
CV15	24781102	Chip, 1000pF, SL
CV16	24781102	Chip, 1000pF, SL
CV17	24781102	Chip, 1000pF, SL
CV18	24781102	Chip, 1000pF, SL
CV19	24781102	Chip, 1000pF, SL
CV23	24203101	EL, 100 μ F, \pm 20%, 16V
CV24	24814103	Chip, 0.01 μ F, +80%, -20%
CV35	24814103	Chip, 0.01 μ F, +80%, -20%
CV39	24794101	EL, 100 μ F, \pm 20%, 16V
CV40	24814103	Chip, 0.01 μ F, +80%, -20%
CV46	24212332	CD, 3300pF, \pm 10%
CV47	24212332	CD, 3300pF, \pm 10%
CV48	24212102	CD, 1000pF, \pm 10%
CV65	24203101	EL, 100 μ F, \pm 20%, 16V
CV66	24794101	EL, 100 μ F, \pm 20%, 16V
CZ01	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
CZ02	24814103	Chip, 0.01 μ F, +80%, -20%
CZ03	24092442	Chip, 0.47 μ F, +80%, -20%, 16V
CZ05	24814103	Chip, 0.01 μ F, +80%, -20%
CZ07	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
CZ09	24781220	Chip, 22pF, SL
CZ10	24781100	Chip, 10pF, \pm 0.5pF%, SL
CZ11	24781220	Chip, 22pF, SL
CZ12	24814103	Chip, 0.01 μ F, +80%, -20%
CZ13	24814103	Chip, 0.01 μ F, +80%, -20%
CZ14	24794100	EL, 10 μ F, \pm 20%, 16V
CZ17	24814103	Chip, 0.01 μ F, +80%, -20%
CZ19	24781181	Chip, 180pF, SL
CZ20	24814103	Chip, 0.01 μ F, +80%, -20%
CZ21	24781122	Chip, 1200pF, SL
CZ22	24794100	EL, 10 μ F, \pm 20%, 16V
CZ23	24814103	Chip, 0.01 μ F, +80%, -20%
CZ24	24814103	Chip, 0.01 μ F, +80%, -20%
CZ25	24794100	EL, 10 μ F, \pm 20%, 16V
CZ26	24814103	Chip, 0.01 μ F, +80%, -20%
CZ28	24814103	Chip, 0.01 μ F, +80%, -20%
CZ29	24814103	Chip, 0.01 μ F, +80%, -20%
CZ30	24794100	EL, 10 μ F, \pm 20%, 16V
CZ31	24092293	Chip, 0.1 μ F, +80%, -20%, 25V
CZ32	24781101	Chip, 100pF, SL
CZ33	24781270	Chip, 27pF, SL
CZ34	24781101	Chip, 100pF, SL
CZ35	24781270	Chip, 27pF, SL
CZ37	24814103	Chip, 0.01 μ F, +80%, -20%
CZ45	24781100	Chip, 10pF, \pm 0.5pF%, SL
RESISTORS		
R101	24366101	CF, 100 ohm
R101	24553223	OMF, 22k ohm, 1W

Location No.	Part No.	Description
R102	24366103	CF, 10k ohm
R204	24366104	CF, 100k ohm
R205	24366101	CF, 100 ohm
R206	24366471	CF, 470 ohm
R208	24366103	CF, 10k ohm
R209	24366103	CF, 10k ohm
R211	24366473	CF, 47k ohm
R216	24366103	CF, 10k ohm
R217	24366392	CF, 3900 ohm
R218	24366101	CF, 100 ohm
R219	24366101	CF, 100 ohm
R219	24366473	CF, 47k ohm
R220	24366101	CF, 100 ohm
R223	24366472	CF, 4700 ohm
R227	24366223	CF, 22k ohm
R229	24366223	CF, 22k ohm
R235	24366222	CF, 2200 ohm
R269	24366391	CF, 390 ohm
R270	24366102	CF, 1k ohm
R271	24366472	CF, 4700 ohm
R271	24872103	Chip, 10k ohm, 1/16W
R272	24872103	Chip, 10k ohm, 1/16W
R303	24321109	MF, 1 ohm, 1/2W
R305	24339518	MF, 0.51 ohm, 2W
R306	24339518	MF, 0.51 ohm, 2W
R307	24366101	CF, 100 ohm
R310	24366511	CF, 510 ohm
R311	24366911	CF, 910 ohm
R312	24366153	CF, 15k ohm
R313	24552132	OMF, 1300 ohm, 1/2W
R314	24366102	CF, 1k ohm
R315	24366332	CF, 3300 ohm
R315	24366474	CF, 470k ohm
R316	24366394	CF, 390k ohm
R317	24366511	CF, 510 ohm
R318	24366101	CF, 100 ohm
R319	24366101	CF, 100 ohm
R320	24366103	CF, 10k ohm
R321	24552392	OMF, 3900 ohm, 1/2W
R322	24366102	CF, 1k ohm
R323	24366155	CF, 1.5M ohm
R324	24366681	CF, 680 ohm
R325	24366103	CF, 10k ohm
R326	24339109	MF, 1 ohm, 2W
R327	24339109	MF, 1 ohm, 2W
R328	24366102	CF, 1k ohm
R330	24366103	CF, 10k ohm
R331	24366104	CF, 100k ohm
R333	24552822	OMF, 8200 ohm, 1/2W
R335	24366103	CF, 10k ohm
R336	24383181	OMF, 180 ohm, 2W
R338	24003898	MF, 3300 ohm, 1/4W
R341	24366822	CF, 8200 ohm
R343	24366273	CF, 27k ohm
R353	24366471	CF, 470 ohm
R360	24366223	CF, 22k ohm
R364	24366223	CF, 22k ohm
R365	24366223	CF, 22k ohm
R366	24366472	CF, 4700 ohm
R370	24366822	CF, 8200 ohm
R371	24366103	CF, 10k ohm
R373	24366103	CF, 10k ohm
R374	24366472	CF, 4700 ohm
R375	24381150	OMF, 15 ohm, 1/2W

Location No.	Part No.	Description
R400	24946561	CC, 560 ohm, 1/2W
R401	24366391	CF, 390 ohm
R402	24366102	CF, 1k ohm
R403	24366392	CF, 3900 ohm
R405	24553682	OMF, 6800 ohm, 1W
R407	24366103	CF, 10k ohm
R410	24366151	CF, 150 ohm
R411	24366560	CF, 56 ohm
R414	24531560	FR, 56 ohm, 1/2W
R415	24366101	CF, 100 ohm
R415	24553472	OMF, 4700 ohm, 1W
R417	24510432	Cement, 4300 ohm, 5W
R424	24366152	CF, 1500 ohm
R425	24366182	CF, 1800 ohm
R426	24366751	CF, 750 ohm
R427	24366392	CF, 3900 ohm
R428	24366561	CF, 560 ohm
R429	24366102	CF, 1k ohm
R429	24552560	OMF, 56 ohm, 1/2W
R430	24366103	CF, 10k ohm
R431	24366103	CF, 10k ohm
R431	24366272	CF, 2700 ohm
R432	24366473	CF, 47k ohm
R433	24366681	CF, 680 ohm
R434	24366472	CF, 4700 ohm
R435	24366184	CF, 180k ohm
R441	24382222	OMF, 2200 ohm, 1W
R442	24533151	FR, 150 ohm, 2W
R445	24321129	MF, 1.2 ohm, 1/2W
R460	24552332	OMF, 3300 ohm, 1/2W
R461	24381182	OMF, 1800 ohm, 1/2W
R462	24366333	CF, 33k ohm
R463	24323229	MF, 2.2 ohm, 2W
R464	24366273	CF, 27k ohm
R465	24366101	CF, 100 ohm
R466	24366392	CF, 3900 ohm
R467	24327224	MF, 220k ohm, $\pm 1\%$, 1/4W
R469	24000211	FR, 15 ohm, 1/2W
R470	24339568	MF, 0.56 ohm, 2W
R471	24531271	FR, 270 ohm, 1/2W
R472	24366101	CF, 100 ohm
R473	24366183	CF, 18k ohm
R473	24366684	CF, 680k ohm
R474	24376393	CF, 39k ohm, 1/2W
R476	24366471	CF, 470 ohm
R477	24366102	CF, 1k ohm
R478	24381333	OMF, 33k ohm, 1/2W
R479	24531680	FR, 68 ohm, 1/2W
R480	24552222	OMF, 2200 ohm, 1/2W
R481	24366392	CF, 3900 ohm
R482	24366103	CF, 10k ohm
R487	24366474	CF, 470k ohm
R488	24366154	CF, 150k ohm
R489	24366102	CF, 1k ohm
R490	24366101	CF, 100 ohm
R491	24366101	CF, 100 ohm
R492	24366472	CF, 4700 ohm
R493	24366103	CF, 10k ohm
R494	24366103	CF, 10k ohm
R495	24366103	CF, 10k ohm
R496	24366273	CF, 27k ohm
R499	24366101	CF, 100 ohm
R502	24366101	CF, 100 ohm
R503	24366101	CF, 100 ohm

Location No.	Part No.	Description
R504	24872101	Chip, 100 ohm, 1/16W
R505	24872101	Chip, 100 ohm, 1/16W
R506	24872273	Chip, 27k ohm, 1/16W
R507	24872392	Chip, 3900 ohm, 1/16W
R512	24872102	Chip, 1k ohm, 1/16W
R513	24366472	CF, 4700 ohm
R513	24872102	Chip, 1k ohm, 1/16W
R514	24366392	CF, 3900 ohm
R514	24872102	Chip, 1k ohm, 1/16W
R515	24872102	Chip, 1k ohm, 1/16W
R516	24872102	Chip, 1k ohm, 1/16W
R517	24872102	Chip, 1k ohm, 1/16W
R609	24366563	CF, 56k ohm
R610	24366103	CF, 10k ohm
R611	24366103	CF, 10k ohm
R612	24366103	CF, 10k ohm
R613	24366224	CF, 220k ohm
R631	24552122	OMF, 1200 ohm, 1/2W
R632	24872153	Chip, 15k ohm, 1/16W
R633	24872101	Chip, 100 ohm, 1/16W
R634	24872332	Chip, 3300 ohm, 1/16W
R635	24872222	Chip, 2200 ohm, 1/16W
R636	24872103	Chip, 10k ohm, 1/16W
R637	24872103	Chip, 10k ohm, 1/16W
R638	24872222	Chip, 2200 ohm, 1/16W
R639	24872153	Chip, 15k ohm, 1/16W
R640	24366222	CF, 2200 ohm
R640	24872153	Chip, 15k ohm, 1/16W
R641	24366222	CF, 2200 ohm
R641	24872153	Chip, 15k ohm, 1/16W
R642	24366472	CF, 4700 ohm
R642	24872221	Chip, 220 ohm, 1/16W
R643	24366562	CF, 5600 ohm
R643	24872104	Chip, 100k ohm, 1/16W
R644	24366473	CF, 47k ohm
R644	24872104	Chip, 100k ohm, 1/16W
R645	24366229	CF, 2.2 ohm
R645	24872102	Chip, 1k ohm, 1/16W
R646	24366223	CF, 22k ohm
R646	24872681	Chip, 680 ohm, 1/16W
R647	24872223	Chip, 22k ohm, 1/16W
R648	24366229	CF, 2.2 ohm
R648	24872223	Chip, 22k ohm, 1/16W
R649	24366223	CF, 22k ohm
R660	24510159	Cement, 1.5 ohm, 5W
R661	24510159	Cement, 1.5 ohm, 5W
R661	24552221	OMF, 220 ohm, 1/2W
R662	24366104	CF, 100k ohm
R662	24552221	OMF, 220 ohm, 1/2W
R670	24366222	CF, 2200 ohm
R671	24366102	CF, 1k ohm
R671	24366392	CF, 3900 ohm
R672	24366102	CF, 1k ohm
R672	24366222	CF, 2200 ohm
R673	24366102	CF, 1k ohm
R673	24366392	CF, 3900 ohm
R674	24366102	CF, 1k ohm
R676	24366223	CF, 22k ohm
R676	24872223	Chip, 22k ohm, 1/16W
R677	24366223	CF, 22k ohm
R677	24872223	Chip, 22k ohm, 1/16W
R678	24366682	CF, 6800 ohm
R678	24872223	Chip, 22k ohm, 1/16W
R679	24366682	CF, 6800 ohm

Location No.	Part No.	Description
R679	24872223	Chip, 22k ohm, 1/16W
R681	24366104	CF, 100k ohm
R684	24366229	CF, 2.2 ohm
R685	24366229	CF, 2.2 ohm
R687	24366222	CF, 2200 ohm
R688	24366222	CF, 2200 ohm
R689	24366104	CF, 100k ohm
R692	24872681	Chip, 680 ohm, 1/16W
R693	24872681	Chip, 680 ohm, 1/16W
R702	24366821	CF, 820 ohm
R712	24366101	CF, 100 ohm
R715	24366223	CF, 22k ohm
R716	24366273	CF, 27k ohm
R717	24366333	CF, 33k ohm
R718	24366222	CF, 2200 ohm
R722	24552471	OMF, 470 ohm, 1/2W
R723	24366101	CF, 100 ohm
R724	24366221	CF, 220 ohm
R725	24366182	CF, 1800 ohm
R730	24552100	OMF, 10 ohm, 1/2W
R731	24553331	OMF, 330 ohm, 1W
R732	24366820	CF, 82 ohm
R733	24366683	CF, 68k ohm
R734	24366820	CF, 82 ohm
R735	24366683	CF, 68k ohm
R736	24366560	CF, 56 ohm
R737	24366152	CF, 1500 ohm
R738	24366102	CF, 1k ohm
R739	24366152	CF, 1500 ohm
R740	24366560	CF, 56 ohm
R741	24366279	CF, 2.7 ohm
R742	24366279	CF, 2.7 ohm
R743	24554221	OMF, 220 ohm, 2W
R744	24366122	CF, 1200 ohm
R745	24366122	CF, 1200 ohm
△ R801	24009954	Metal-Glazed Resistor, 2.2M ohm, 1/2W
R803	24383333	OMF, 33k ohm, 2W
R804	24366334	CF, 330k ohm
R805	24366681	CF, 680 ohm
R807	24366334	CF, 330k ohm
R808	24019484	PTC Thermistor, 4.5 ohm
R809	24366393	CF, 39k ohm
R810	24007863	Cement, 3.3 ohm, 15W
R814	24366682	CF, 6800 ohm
R815	24366332	CF, 3300 ohm
R818	24019460	MF, 0.1 ohm, 2W
R819	24310829	MF, 8.2 ohm, 1/2W
R821	24366101	CF, 100 ohm
R822	24552103	OMF, 10k ohm, 1/2W
R823	24552822	OMF, 8200 ohm, 1/2W
R824	24569689	Cement, 6.8 ohm, 10W
R827	24366681	CF, 680 ohm
R828	24366821	CF, 820 ohm
R829	24321338	MF, 0.33 ohm, 1/2W
R841	24531120	FR, 12 ohm, 1/2W
R842	24552392	OMF, 3900 ohm, 1/2W
R843	24366331	CF, 330 ohm
R846	24366101	CF, 100 ohm
R847	24366472	CF, 4700 ohm
R849	24366471	CF, 470 ohm
R850	24366103	CF, 10k ohm
R851	24366102	CF, 1k ohm
R852	24366225	CF, 2.2M ohm

Location No.	Part No.	Description
R865	24366332	CF, 3300 ohm
R868	24366472	CF, 4700 ohm
△ R899	24005015	Metal-Glazed Resistor, 8.2M ohm, 1W
R901	24376561	CF, 560 ohm, 1/2W
R902	24376561	CF, 560 ohm, 1/2W
R903	24376561	CF, 560 ohm, 1/2W
R904	24366472	CF, 4700 ohm
R905	24366150	CF, 15 ohm
R909	24366100	CF, 10 ohm
R912	24366102	CF, 1k ohm
R914	24366471	CF, 470 ohm
R915	24366101	CF, 100 ohm
R916	24366101	CF, 100 ohm
R917	24366271	CF, 270 ohm
R918	24366820	CF, 82 ohm
R919	24366102	CF, 1k ohm
R920	24000880	FR, 5.1 ohm, 1W
R921	24366471	CF, 470 ohm
R922	24366101	CF, 100 ohm
R924	24366820	CF, 82 ohm
R925	24366271	CF, 270 ohm
R926	24366102	CF, 1k ohm
R928	24366471	CF, 470 ohm
R929	24366101	CF, 100 ohm
R930	24366820	CF, 82 ohm
R932	24366332	CF, 3300 ohm
R933	24366750	CF, 75 ohm
R934	24366361	CF, 360 ohm
R935	24366102	CF, 1k ohm
R936	24366750	CF, 75 ohm
R937	24366271	CF, 270 ohm
R939	24366101	CF, 100 ohm
R942	24366392	CF, 3900 ohm
R943	24366392	CF, 3900 ohm
R944	24366392	CF, 3900 ohm
R945	24366101	CF, 100 ohm
R946	24366101	CF, 100 ohm
R960	24383153	OMF, 15k ohm, 2W
R961	24383153	OMF, 15k ohm, 2W
R963	24383153	OMF, 15k ohm, 2W
R964	24383153	OMF, 15k ohm, 2W
R966	24383153	OMF, 15k ohm, 2W
R967	24383153	OMF, 15k ohm, 2W
R977	24366122	CF, 1200 ohm
R980	24366471	CF, 470 ohm
R981	24366821	CF, 820 ohm
R982	24366103	CF, 10k ohm
R983	24366222	CF, 2200 ohm
R984	24366152	CF, 1500 ohm
R985	24367471	CF, 470 ohm, $\pm 2\%$
R986	24367681	CF, 680 ohm, $\pm 2\%$
R987	24367681	CF, 680 ohm, $\pm 2\%$
R988	24367472	CF, 4700 ohm, $\pm 2\%$
R989	24367332	CF, 3300 ohm, $\pm 2\%$
R990	24366222	CF, 2200 ohm
R991	24367681	CF, 680 ohm, $\pm 2\%$
R992	24366150	CF, 15 ohm
R4310	24366183	CF, 18k ohm
R4460	24366102	CF, 1k ohm
R4461	24366102	CF, 1k ohm
R4462	24366133	CF, 13k ohm
R4463	24366562	CF, 5600 ohm
R4464	24366223	CF, 22k ohm

Location No.	Part No.	Description
R4472	24366102	CF, 1k ohm
R4490	24382222	OMF, 2200 ohm, 1W
R4491	24366392	CF, 3900 ohm
R4492	24366103	CF, 10k ohm
R4493	24382104	OMF, 100k ohm, 1W
R4495	24366473	CF, 47k ohm
RA01	24366102	CF, 1k ohm
RA04	24366102	CF, 1k ohm
RA05	24366102	CF, 1k ohm
RA07	24366102	CF, 1k ohm
RA08	24366102	CF, 1k ohm
RA09	24366682	CF, 6800 ohm
RA10	24366682	CF, 6800 ohm
RA11	24366331	CF, 330 ohm
RA12	24366331	CF, 330 ohm
RA13	24366153	CF, 15k ohm
RA14	24366103	CF, 10k ohm
RA16	24366102	CF, 1k ohm
RA17	24366102	CF, 1k ohm
RA18	24366102	CF, 1k ohm
RA19	24366331	CF, 330 ohm
RA20	24366331	CF, 330 ohm
RA21	24366331	CF, 330 ohm
RA22	24366331	CF, 330 ohm
RA24	24366472	CF, 4700 ohm
RA25	24366103	CF, 10k ohm
RA26	24366102	CF, 1k ohm
RA27	24366102	CF, 1k ohm
RA29	24366102	CF, 1k ohm
RA29	24366104	CF, 100k ohm
RA30	24366102	CF, 1k ohm
RA30	24366103	CF, 10k ohm
RA33	24366103	CF, 10k ohm
RA35	24366102	CF, 1k ohm
RA37	24366101	CF, 100 ohm
RA38	24366101	CF, 100 ohm
RA40	24366331	CF, 330 ohm
RA41	24366273	CF, 27k ohm
RA42	24366102	CF, 1k ohm
RA43	24366102	CF, 1k ohm
RA44	24366103	CF, 10k ohm
RA62	24366102	CF, 1k ohm
RA63	24366102	CF, 1k ohm
RA65	24366103	CF, 10k ohm
RA66	24366103	CF, 10k ohm
RA67	24366472	CF, 4700 ohm
RA68	24366472	CF, 4700 ohm
RA70	24366333	CF, 33k ohm
RA71	24366683	CF, 68k ohm
RA72	24366223	CF, 22k ohm
RA73	24366103	CF, 10k ohm
RA75	24366333	CF, 33k ohm
RA76	24366103	CF, 10k ohm
RA77	24366223	CF, 22k ohm
RA78	24366102	CF, 1k ohm
RA78	24366683	CF, 68k ohm
RA85	24366102	CF, 1k ohm
RA89	24366152	CF, 1500 ohm
RB01	24366271	CF, 270 ohm
RB02	24366271	CF, 270 ohm
RB04	24366223	CF, 22k ohm
RB05	24366223	CF, 22k ohm
RB07	24366271	CF, 270 ohm
RB08	24366271	CF, 270 ohm

Location No.	Part No.	Description
RB09	24366470	CF, 47 ohm
RB10	24366101	CF, 100 ohm
RB11	24366103	CF, 10k ohm
RB30	24366103	CF, 10k ohm
RB30	24366105	CF, 1M ohm
RB31	24366102	CF, 1k ohm
RB32	24366332	CF, 3300 ohm
RB33	24366332	CF, 3300 ohm
RB35	24366102	CF, 1k ohm
RB36	24366102	CF, 1k ohm
RB37	24366221	CF, 220 ohm
RB38	24366331	CF, 330 ohm
RB39	24366331	CF, 330 ohm
RB43	24366103	CF, 10k ohm
RB44	24366103	CF, 10k ohm
RB45	24366101	CF, 100 ohm
RB50	24366101	CF, 100 ohm
RB81	24366122	CF, 1200 ohm
RB82	24366123	CF, 12k ohm
RB83	24366123	CF, 12k ohm
RB84	24366562	CF, 5600 ohm
RB90	24366392	CF, 3900 ohm
RB91	24366473	CF, 47k ohm
RB92	24366271	CF, 270 ohm
RB93	24366271	CF, 270 ohm
RB94	24366222	CF, 2200 ohm
RB95	24366222	CF, 2200 ohm
RB96	24366273	CF, 27k ohm
RB97	24366273	CF, 27k ohm
RB98	24366102	CF, 1k ohm
RC01	24000824	Chip, Jumper, 2125 type
RC02	24000824	Chip, Jumper, 2125 type
RD08	24366102	CF, 1k ohm
RD16	24366333	CF, 33k ohm
RD28	24366102	CF, 1k ohm
RR01	24366102	CF, 1k ohm
RR01	24366472	CF, 4700 ohm
RR02	24366104	CF, 100k ohm
RR02	24366472	CF, 4700 ohm
RR03	24366222	CF, 2200 ohm
RR03	24366472	CF, 4700 ohm
RR04	24366101	CF, 100 ohm
RR05	24366102	CF, 1k ohm
RR06	24366223	CF, 22k ohm
RR07	24366152	CF, 1500 ohm
RR10	24366102	CF, 1k ohm
RR11	24366681	CF, 680 ohm
RR12	24366152	CF, 1500 ohm
RR13	24366152	CF, 1500 ohm
RR15	24366391	CF, 390 ohm
RR16	24366391	CF, 390 ohm
RR17	24366391	CF, 390 ohm
RR18	24366102	CF, 1k ohm
RR20	24872103	Chip, 10k ohm, 1/16W
RR22	24366103	CF, 10k ohm
RR23	24366103	CF, 10k ohm
RR24	24000824	Chip, Jumper, 2125 type
RR24	24366332	CF, 3300 ohm
RR25	24366332	CF, 3300 ohm
RR25	24872102	Chip, 1k ohm, 1/16W
RR26	24366332	CF, 3300 ohm
RR32	24366331	CF, 330 ohm
RR33	24366331	CF, 330 ohm
RR33	24366472	CF, 4700 ohm

Location No.	Part No.	Description
RR34	24366331	CF, 330 ohm
RR34	24366472	CF, 4700 ohm
RR35	24366392	CF, 3900 ohm
RR35	24366472	CF, 4700 ohm
RR36	24366392	CF, 3900 ohm
RR37	24366392	CF, 3900 ohm
RR40	24366102	CF, 1k ohm
RR48	24366102	CF, 1k ohm
RR74	24366102	CF, 1k ohm
RR75	24366102	CF, 1k ohm
RS01	24872681	Chip, 680 ohm, 1/16W
RS02	24872681	Chip, 680 ohm, 1/16W
RS03	24872562	Chip, 5600 ohm, 1/16W
RS04	24872562	Chip, 5600 ohm, 1/16W
RS05	24872562	Chip, 5600 ohm, 1/16W
RS06	24872562	Chip, 5600 ohm, 1/16W
RS07	24872562	Chip, 5600 ohm, 1/16W
RS08	24872562	Chip, 5600 ohm, 1/16W
RS09	24872562	Chip, 5600 ohm, 1/16W
RS10	24872562	Chip, 5600 ohm, 1/16W
RS13	24872101	Chip, 100 ohm, 1/16W
RS14	24872101	Chip, 100 ohm, 1/16W
RS15	24872104	Chip, 100k ohm, 1/16W
RS16	24872104	Chip, 100k ohm, 1/16W
RS17	24872223	Chip, 22k ohm, 1/16W
RS18	24872223	Chip, 22k ohm, 1/16W
RS19	24872681	Chip, 680 ohm, 1/16W
RS20	24872681	Chip, 680 ohm, 1/16W
RS21	24872222	Chip, 2200 ohm, 1/16W
RS22	24872222	Chip, 2200 ohm, 1/16W
RS23	24872101	Chip, 100 ohm, 1/16W
RS24	24872101	Chip, 100 ohm, 1/16W
RS27	24872104	Chip, 100k ohm, 1/16W
RS28	24872104	Chip, 100k ohm, 1/16W
RS29	24872223	Chip, 22k ohm, 1/16W
RS30	24872223	Chip, 22k ohm, 1/16W
RS31	24872103	Chip, 10k ohm, 1/16W
RS32	24872104	Chip, 100k ohm, 1/16W
RS35	24872223	Chip, 22k ohm, 1/16W
RS36	24872223	Chip, 22k ohm, 1/16W
RS37	24872104	Chip, 100k ohm, 1/16W
RS38	24872104	Chip, 100k ohm, 1/16W
RS43	24872681	Chip, 680 ohm, 1/16W
RS44	24872681	Chip, 680 ohm, 1/16W
RT01	24366101	CF, 100 ohm
RT02	24366101	CF, 100 ohm
RT03	24366102	CF, 1k ohm
RT04	24366102	CF, 1k ohm
RT05	24366100	CF, 10 ohm
RT09	24366332	CF, 3300 ohm
RT13	24366102	CF, 1k ohm
RT14	24366222	CF, 2200 ohm
RT15	24366103	CF, 10k ohm
RT16	24366103	CF, 10k ohm
RT17	24366561	CF, 560 ohm
RT18	24366152	CF, 1500 ohm
RT19	24366122	CF, 1200 ohm
RT27	24367243	CF, 24k ohm, $\pm 2\%$
RT28	24366101	CF, 100 ohm
RT30	24366472	CF, 4700 ohm
RT31	24366472	CF, 4700 ohm
RT38	24366151	CF, 150 ohm
RT40	24366151	CF, 150 ohm
RT43	24366151	CF, 150 ohm

Location No.	Part No.	Description
RV05	24872101	Chip, 100 ohm, 1/16W
RV06	24872152	Chip, 1500 ohm, 1/16W
RV07	24872103	Chip, 10k ohm, 1/16W
RV08	24872103	Chip, 10k ohm, 1/16W
RV09	24872101	Chip, 100 ohm, 1/16W
RV10	24872101	Chip, 100 ohm, 1/16W
RV12	24872681	Chip, 680 ohm, 1/16W
RV13	24872681	Chip, 680 ohm, 1/16W
RV22	24366222	CF, 2200 ohm
RV23	24552101	OMF, 100 ohm, 1/2W
RV24	24366181	CF, 180 ohm
RV25	24872101	Chip, 100 ohm, 1/16W
RV26	24366181	CF, 180 ohm
RV27	24872750	Chip, 75 ohm, 1/16W
RV28	24872562	Chip, 5600 ohm, 1/16W
RV29	24872103	Chip, 10k ohm, 1/16W
RV30	24872750	Chip, 75 ohm, 1/16W
RV31	24872750	Chip, 75 ohm, 1/16W
RV32	24872750	Chip, 75 ohm, 1/16W
RV33	24872562	Chip, 5600 ohm, 1/16W
RV34	24872562	Chip, 5600 ohm, 1/16W
RV37	24872750	Chip, 75 ohm, 1/16W
RV60	24872102	Chip, 1k ohm, 1/16W
RV61	24552101	OMF, 100 ohm, 1/2W
RV62	24872101	Chip, 100 ohm, 1/16W
RV63	24366151	CF, 150 ohm
RV64	24872750	Chip, 75 ohm, 1/16W
RV65	24552101	OMF, 100 ohm, 1/2W
RV66	24872750	Chip, 75 ohm, 1/16W
RV67	24366151	CF, 150 ohm
RV68	24872101	Chip, 100 ohm, 1/16W
RV70	24872101	Chip, 100 ohm, 1/16W
RV71	24872472	Chip, 4700 ohm, 1/16W
RV80	24366681	CF, 680 ohm
RV81	24872750	Chip, 75 ohm, 1/16W
RV82	24872101	Chip, 100 ohm, 1/16W
RV83	24366681	CF, 680 ohm
RV85	24872750	Chip, 75 ohm, 1/16W
RV86	24872750	Chip, 75 ohm, 1/16W
RV87	24872750	Chip, 75 ohm, 1/16W
RV89	24872750	Chip, 75 ohm, 1/16W
RV90	24872681	Chip, 680 ohm, 1/16W
RV91	24872681	Chip, 680 ohm, 1/16W
RV95	24872750	Chip, 75 ohm, 1/16W
RV96	24872750	Chip, 75 ohm, 1/16W
RV97	24872750	Chip, 75 ohm, 1/16W
RZ01	24872102	Chip, 1k ohm, 1/16W
RZ02	24872102	Chip, 1k ohm, 1/16W
RZ03	24872332	Chip, 3300 ohm, 1/16W
RZ04	24872102	Chip, 1k ohm, 1/16W
RZ05	24872391	Chip, 390 ohm, 1/16W
RZ06	24872821	Chip, 820 ohm, 1/16W
RZ08	24872391	Chip, 390 ohm, 1/16W
RZ09	24872101	Chip, 100 ohm, 1/16W
RZ13	24872102	Chip, 1k ohm, 1/16W
RZ14	24872102	Chip, 1k ohm, 1/16W
RZ15	24872102	Chip, 1k ohm, 1/16W
RZ17	24872391	Chip, 390 ohm, 1/16W
RZ18	24872391	Chip, 390 ohm, 1/16W
RZ20	24872101	Chip, 100 ohm, 1/16W
RZ29	24872101	Chip, 100 ohm, 1/16W
RZ30	24872101	Chip, 100 ohm, 1/16W

Location No.	Part No.	Description
COILS & TRANSFORMERS		
L101	23221803	Coil, Choke, TLN3040D
L201	23289840	Coil, Peaking, TRF4100AT
L301	23103859	Coil (Ferrite Bead), TEM2011
L302	23289846	Coil, Peaking, TRF4101AT
L333	23238702	Coil, Peaking, TRF4101AJ
L400	23289846	Coil, Peaking, TRF4101AT
L410	23103859	Coil (Ferrite Bead), TEM2011
L441	23233971	Coil, Linearity, TLN2144BG
L442	23248122	Coil, Choke, TLN3384D
L443	23248246	Coil, Choke, TLN3498AH
L445	23221684	Coil, Choke, TLN3191D
L449	23103859	Coil (Ferrite Bead), TEM2011
L461	23248186	Coil, Choke, TLN3346AD
L491	23248183	Coil, Choke, TLN3343AD
L492	23222655	Coil, Width, TLN2074
L501	23238714	Coil, Peaking, TRF4100AJ
L501	23289840	Coil, Peaking, TRF4100AT
L502	23238714	Coil, Peaking, TRF4100AJ
L503	23289840	Coil, Peaking, TRF4100AT
L503	23289844	Coil, Peaking, TRF4470AT
L510	23103852	Coil, Filter, TEM2028AH
L512	23103898	Coil, Filter, TEM2030AH
L513	23103898	Coil, Filter, TEM2030AH
L513	23103898	Coil, Filter, TEM2030AH
L631	23103832	Chip (Ferrite Bead), TEM2125M
L632	24000824	Chip Jumper, 2125 Type
L643	23103887	Chip (Ferrite Bead), TEM2130AM
L644	23103887	Chip (Ferrite Bead), TEM2130AM
L671	23103887	Chip (Ferrite Bead), TEM2130AM
L672	23103887	Chip (Ferrite Bead), TEM2130AM
L676	23103832	Chip (Ferrite Bead), TEM2125M
L677	23103832	Chip (Ferrite Bead), TEM2125M
L682	23103832	Chip (Ferrite Bead), TEM2125M
L683	23103832	Chip (Ferrite Bead), TEM2125M
L684	23289834	Coil, Peaking, TRF41R0AT
L685	23289834	Coil, Peaking, TRF41R0AT
L701	23289840	Coil, Peaking, TRF4100AT
L702	23261974	Coil, Choke, HC5-035
L704	23103859	Coil (Ferrite Bead), TEM2011
L705	23103859	Coil (Ferrite Bead), TEM2011
L811	23103859	Coil (Ferrite Bead), TEM2011
L883	23221747	Coil, Choke, TRF9253D
L885	23248073	Coil, Choke, TLN3299D
L886	23103859	Coil (Ferrite Bead), TEM2011
L889	23222694	Coil, Width, TLN2026
L891	23103859	Coil (Ferrite Bead), TEM2011
L892	23103859	Coil (Ferrite Bead), TEM2011
L893	23280016	Coil, Peaking, TRF4100AZ
L894	23289840	Coil, Peaking, TRF4100AT
L895	23222694	Coil, Width, TLN2026
L896	23103859	Coil (Ferrite Bead), TEM2011
L897	23280016	Coil, Peaking, TRF4100AZ
△ L901	23200439	Coil, Degaussing, TSB-2405AT
L902	23289846	Coil, Peaking, TRF4101AT

Location No.	Part No.	Description
L903	23289846	Coil, Peaking, TRF4101AT
L904	23289846	Coil, Peaking, TRF4101AT
L905	23289390	Coil, Peaking, TRF4390AF
L906	23289390	Coil, Peaking, TRF4390AF
L907	23289390	Coil, Peaking, TRF4390AF
L908	23289840	Coil, Peaking, TRF4100AT
L910	23289479	Coil, Peaking, TRF44R7AF
LA01	23289840	Coil, Peaking, TRF4100AT
LB30	23289100	Coil, Peaking, TRF4100AF
LC30	23103775	Coil (Ferrite Bead), TEM2014
LC31	23103775	Coil (Ferrite Bead), TEM2014
LC43	23103775	Coil (Ferrite Bead), TEM2014
LC44	23103775	Coil (Ferrite Bead), TEM2014
LC45	23289834	Coil, Peaking, TRF41R0AT
LR01	23289834	Coil, Peaking, TRF41R0AT
LR02	23289834	Coil, Peaking, TRF41R0AT
LR26	23103898	Coil, Filter, TEM2030AH
LS45	23103832	Chip (Ferrite Bead), TEM2125M
LS46	23103832	Chip (Ferrite Bead), TEM2125M
LT01	23238506	Coil, Peaking, TRF4229AJ
LT02	23238506	Coil, Peaking, TRF4229AJ
LT03	23289836	Coil, Peaking, TRF42R2AT
LT04	23289836	Coil, Peaking, TRF42R2AT
LT05	23238506	Coil, Peaking, TRF4229AJ
LT07	23238506	Coil, Peaking, TRF4229AJ
LT08	23238506	Coil, Peaking, TRF4229AJ
LT09	23238506	Coil, Peaking, TRF4229AJ
LT10	23238506	Coil, Peaking, TRF4229AJ
LV06	23103832	Chip (Ferrite Bead), TEM2125M
LV07	23103832	Chip (Ferrite Bead), TEM2125M
LV09	23289840	Coil, Peaking, TRF4100AT
LV42	23289840	Coil, Peaking, TRF4100AT
LV43	23289840	Coil, Peaking, TRF4100AT
LZ01	23238710	Coil, Peaking, TRF4220AJ
LZ02	23238714	Coil, Peaking, TRF4100AJ
LZ03	23238714	Coil, Peaking, TRF4100AJ
LZ04	23238708	Coil, Peaking, TRF4330AJ
LZ05	23238709	Coil, Peaking, TRF4270AJ
LZ06	23103852	Coil, Filter, TEM2028AH
LZ07	70131060	Beze Filter, ZBF253D-00
LZ08	23238707	Coil, Peaking, TRF4390AJ
LZ09	70131060	Beze Filter, ZBF253D-00
LZ10	70131060	Beze Filter, ZBF253D-00
△ T400	23224364	Transformer, Focus, TLN2168AH
T401	23224373	Transformer, Horiz, Drive, TLN1100AM
△ T461	23236634	Transformer, Flyback, TFB4164AD
T461B	23501175	Cable, Forcus
T461C	23501176	Cable, Forcus
T461D	23236447	Screen, SCREEN4115
△ T863	23217434	Transformer, Converter, TPW3427AG
SEMICONDUCTORS		
Q200	A6330059	Transistor, 2SC2482(C)
Q201	A6317440	Transistor, 2SC1815-Y
Q205	A6534040	Transistor, 2SA1015-Y
Q206	A6317440	Transistor, 2SC1815-Y

Location No.	Part No.	Description
Q209	A6534040	Transistor, 2SA1015-Y
Q274	A6335470	Transistor, 2SC2712-Y
Q301	23905610	IC, LA7846N
Q301B	70391355	Screw, BITTB3X8 SZN
Q303	A6534040	Transistor, 2SA1015-Y
Q304	A6317440	Transistor, 2SC1815-Y
Q360	A6317440	Transistor, 2SC1815-Y
Q370	A6534040	Transistor, 2SA1015-Y
Q371	A6002020	Transistor, RN1202
Q372	A6002020	Transistor, RN1202
Q390	23319203	IC, MC7812CT
Q390B	70391355	Screw, BITTB3X8 SZN
Q391	23319247	IC, MC7912CT
Q391B	70391355	Screw, BITTB3X8 SZN
Q402	A6330069	Transistor, 2CS2482 FA-1
Q404	A6873777	Transistor, 2SD2553
Q404C	72471082	Screw, BRDT2W3X10 SZN
Q404D	72471082	Screw, BRDT2W3X10 SZN
Q420	23314141	Transistor, 2SC3852
Q420B	70391355	Screw, BITTB3X8 SZN
Q421	A6317440	Transistor, 2SC1815-Y
Q430	23314141	Transistor, 2SC3852
Q430	A6734590	Transistor, 2SC752(G)TM-Y
Q430B	70391355	Screw, BITTB3X8 SZN
Q432	A6317440	Transistor, 2SC1815-Y
Q460	23314850	Transistor, 2SA1788, E
Q460B	72471082	Screw, BRDT2W3X10 SZN
Q461	A6317440	Transistor, 2SC1815-Y
Q462	A6317440	Transistor, 2SC1815-Y
Q470	A6317440	Transistor, 2SC1815-Y
Q470	A6547250	Transistor, 2SA1320
Q471	A6317440	Transistor, 2SC1815-Y
Q472	A6317440	Transistor, 2SC1815-Y
Q473	A6534040	Transistor, 2SA1015-Y
Q490	A6317440	Transistor, 2SC1815-Y
Q491	A6317440	Transistor, 2SC1815-Y
Q501	B01A2290	IC, TB1239BF(J)
Q504	A6541130	Transistor, 2SA1162-Y
Q505	A6541130	Transistor, 2SA1162-Y
Q510	B0386208	IC, TA1276AN
Q608	A6534040	Transistor, 2SA1015-Y
Q612	A6534040	Transistor, 2SA1015-Y
Q631	23906596	IC, BA4558
Q632	A6014040	Transistor, RN2404
Q633	A6359870	Transistor, 2SC3326-B
Q634	A6014040	Transistor, RN2404
Q635	A6359870	Transistor, 2SC3326-B
Q640	B0376856	IC, TA8211AH
Q640B	70391355	Screw, BITTB3X8 SZN
Q641	A6342200	Transistor, 2CS2878-A
Q642	A6342200	Transistor, 2CS2878-A
Q670	B0376856	IC, TA8211AH
Q670B	70391355	Screw, BITTB3X8 SZN
Q671	A6342200	Transistor, 2CS2878-A
Q672	A6342200	Transistor, 2CS2878-A
Q688	A6002040	Transistor, RN1204
Q705	A6317440	Transistor, 2SC1815-Y
Q706	A6317440	Transistor, 2SC1815-Y
Q707	A6734590	Transistor, 2SC752(G)TM-Y
Q709	A6317440	Transistor, 2SC1815-Y
Q710	A6534040	Transistor, 2SA1015-Y
Q711	A6550640	Transistor, 2SA1837
Q711B	70391355	Screw, BITTB3X8 SZN
Q712	A6369650	Transistor, 2SC4793

Location No.	Part No.	Description
Q712B	70391355	Screw, BITTB3X8 SZN
Q719	A6317440	Transistor, 2SC1815-Y
Q801	23135008	IC, STR-F6668B
Q801B	72471082	Screw, BRDT2W3X10 SZN
Q802	23314141	Transistor, 2SC3852
Q802B	70391355	Screw, BITTB3X8 SZN
Q805	A6317440	Transistor, 2SC1815-Y
△ Q826	A8643108	Photo Coupler, TLP621(GR-LF
Q827	23319693	IC, SE116N, LF4
Q830	23314141	Transistor, 2SC3852
Q830B	70391355	Screw, BITTB3X8 SZN
Q840	23318299	IC, L78MR05
Q840B	70391355	Screw, BITTB3X8 SZN
Q841	A6317440	Transistor, 2SC1815-Y
Q842	A6317440	Transistor, 2SC1815-Y
Q901	A6368700	Transistor, 2CS4544
Q901B	70391355	Screw, BITTB3X8 SZN
Q902	A6317440	Transistor, 2SC1815-Y
Q903	A6368700	Transistor, 2CS4544
Q903B	70391355	Screw, BITTB3X8 SZN
Q904	A6317440	Transistor, 2SC1815-Y
Q905	A6368700	Transistor, 2CS4544
Q905B	70391355	Screw, BITTB3X8 SZN
Q906	A6317440	Transistor, 2SC1815-Y
Q907	A6509140	Transistor, 2SA562TM-Y
Q908	A6321240	Transistor, 2SC2120-Y
Q910	A6317440	Transistor, 2SC1815-Y
Q911	A6317440	Transistor, 2SC1815-Y
Q912	A6534040	Transistor, 2SA1015-Y
Q913	A6534040	Transistor, 2SA1015-Y
Q914	A6317440	Transistor, 2SC1815-Y
Q4460	A6317440	Transistor, 2SC1815-Y
Q4462	A6317440	Transistor, 2SC1815-Y
Q4490	A8641063	Photo Coupler, TLP521-1
Q4491	23314917	Transistor, 2SK2003-01MR
Q4493	A6317440	Transistor, 2SC1815-Y
QA01	23000795	IC, 750010-153S
QA02	23906642	IC, AT24C64-10PC
QA05	A6734590	Transistor, 2SC752(G)TM-Y
QB01	A6534040	Transistor, 2SA1015-Y
QB03	A6534040	Transistor, 2SA1015-Y
QB04	A6534040	Transistor, 2SA1015-Y
QB30	23906946	IC, CM0016AD
QB30	A6317440	Transistor, 2SC1815-Y
QB81	A6342200	Transistor, 2CS2878-A
QB82	A6342200	Transistor, 2CS2878-A
QB83	A6534040	Transistor, 2SA1015-Y
QB92	A6317440	Transistor, 2SC1815-Y
QB93	A6534040	Transistor, 2SA1015-Y
QB94	A6534040	Transistor, 2SA1015-Y
QB95	A6534040	Transistor, 2SA1015-Y
QB96	A6534040	Transistor, 2SA1015-Y
QD01	B0413738	IC, TC9337F-024
QR01	23000123	IC, MB90096-192
QR03	23114530	Transistor, 2SA933S-Q
QR04	A6534040	Transistor, 2SA1015-Y
QR05	A6534040	Transistor, 2SA1015-Y
QR06	A6534040	Transistor, 2SA1015-Y
QR24	A6335470	Transistor, 2SC2712-Y
QS01	A6359870	Transistor, 2SC3326-B
QS02	A6359870	Transistor, 2SC3326-B
QS03	A6335470	Transistor, 2SC2712-Y
QS04	A6335470	Transistor, 2SC2712-Y
QS05	A6359870	Transistor, 2SC3326-B

Location No.	Part No.	Description
QS06	A6359870	Transistor, 2SC3326-B
QS07	A6014040	Transistor, RN2404
QS08	A6359870	Transistor, 2SC3326-B
QS09	A6359870	Transistor, 2SC3326-B
QT01	23000470	IC, SAA5264PSM3C
QT02	A6317440	Transistor, 2SC1815-Y
QT03	A6734590	Transistor, 2SC752(G)TM-Y
QT04	A6534040	Transistor, 2SA1015-Y
QT06	23906484	IC, BA033T
QT07	23906809	IC, S-24C02ADPA
QV01	23000369	IC, MM1495XD
QV02	A6317440	Transistor, 2SC1815-Y
QV06	A6541130	Transistor, 2SA1162-Y
QV07	A6335470	Transistor, 2SC2712-Y
QV09	A6317440	Transistor, 2SC1815-Y
QV10	A6335470	Transistor, 2SC2712-Y
QV12	A6317440	Transistor, 2SC1815-Y
QV14	A6317440	Transistor, 2SC1815-Y
QZ01	B0410895	IC, TC90A49P
QZ02	A6335470	Transistor, 2SC2712-Y
QZ04	A6541130	Transistor, 2SA1162-Y
QZ05	A6541130	Transistor, 2SA1162-Y
QZ07	A6541130	Transistor, 2SA1162-Y
QZ08	A6335470	Transistor, 2SC2712-Y
D101	23316756	Diode, Zener, MTZJ33D
D201	23115599	Diode, 1N4148
D240	23115599	Diode, 1N4148
D301	23118094	Diode, EU2A, LF-F10
D302	23118094	Diode, EU2A, LF-F10
D304	23118094	Diode, EU2A, LF-F10
D312	23115599	Diode, 1N4148
D313	23115599	Diode, 1N4148
D320	23115599	Diode, 1N4148
D327	23316717	Diode, Zener, MTZJ11C
D336	23316672	Diode, Zener, MTZJ5.6B
D337	23316672	Diode, Zener, MTZJ5.6B
D370	23118479	Diode, BYD33J
D370	23316658	Diode, Zener, MTZJ3.6A
D371	23115599	Diode, 1N4148
D371	23118479	Diode, BYD33J
D373	23316690	Diode, Zener, MTZJ10B
D374	23115599	Diode, 1N4148
D406	23118479	Diode, BYD33J
D421	23316680	Diode, Zener, MTZJ7.5A
D422	23316726	Diode, Zener, MTZJ15C
D431	23316670	Diode, Zener, MTZJ5.1C
D432	23316670	Diode, Zener, MTZJ5.1C
D436	23115599	Diode, 1N4148
D441	23316690	Diode, Zener, MTZJ10B
D460	23118479	Diode, BYD33J
D461	23316803	Diode, FMU-G16S
D461B	70391355	Screw, BITTB3X8 SZN
D463	23115599	Diode, 1N4148
D464	23316725	Diode, Zener, MTZJ15B
D466	23316672	Diode, Zener, MTZJ5.6B
D467	23118479	Diode, BYD33J
D470	23316670	Diode, Zener, MTZJ5.1C
D474	23316719	Diode, Zener, MTZJ12B
D488	23115599	Diode, 1N4148
D490	23115599	Diode, 1N4148
D492	23115599	Diode, 1N4148
D498	23316745	Diode, Zener, MTZJ27A
D499	23115599	Diode, 1N4148
D501	23115599	Diode, 1N4148

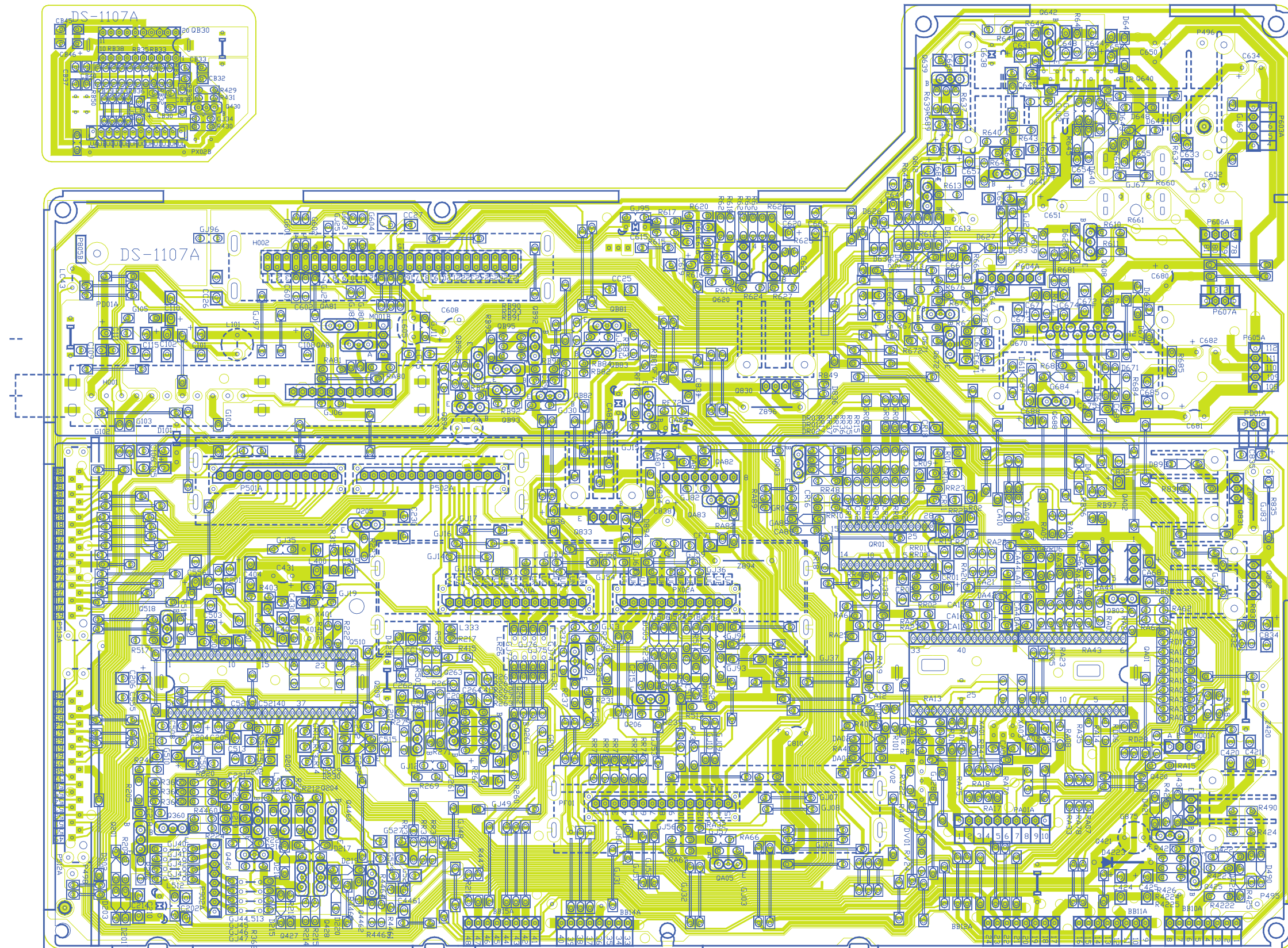
Location No.	Part No.	Description
D507	23357037	Diode, Zener, UDZSTE175.6B
D508	23357037	Diode, Zener, UDZSTE175.6B
D509	23357037	Diode, Zener, UDZSTE175.6B
D511	23357037	Diode, Zener, UDZSTE175.6B
D512	23357037	Diode, Zener, UDZSTE175.6B
D513	23357037	Diode, Zener, UDZSTE175.6B
D611	23115599	Diode, 1N4148
D612	23115599	Diode, 1N4148
D613	23115599	Diode, 1N4148
D614	23115599	Diode, 1N4148
D624	23115599	Diode, 1N4148
D625	23115599	Diode, 1N4148
D626	23115599	Diode, 1N4148
D627	23115599	Diode, 1N4148
D628	23115599	Diode, 1N4148
D630	23115599	Diode, 1N4148
D631	23118269	Diode, Zener, RD22M-T1BB2
D640	23115599	Diode, 1N4148
D641	23115599	Diode, 1N4148
D642	23115599	Diode, 1N4148
D643	23115599	Diode, 1N4148
D670	23115599	Diode, 1N4148
D671	23115599	Diode, 1N4148
D674	23115599	Diode, 1N4148
D675	23115599	Diode, 1N4148
D683	23115599	Diode, 1N4148
D704	23115599	Diode, 1N4148
D705	23115599	Diode, 1N4148
D715	23115599	Diode, 1N4148
D721	23115599	Diode, 1N4148
D801	23357041	Diode, LN6SB60-F05
D804	23316725	Diode, Zener, MTZJ15B
D805	23357012	Diode, 1SS244
D806	23118479	Diode, BYD33J
D810	23316738	Diode, Zener, MTZJ22B
D811	23115599	Diode, 1N4148
D815	23316746	Diode, Zener, MTZJ27B
D817	23115599	Diode, 1N4148
D818	23316738	Diode, Zener, MTZJ22B
D819	23316678	Diode, Zener, MTZJ6.8B
D828	23115599	Diode, 1N4148
D836	23316673	Diode, Zener, MTZJ5.6C
D842	23316724	Diode, Zener, MTZJ15A
D844	23316717	Diode, Zener, MTZJ11C
D848	23316675	Diode, Zener, MTZJ6.2B
D855	23115599	Diode, 1N4148
D883	23316803	Diode, FMU-G16S
D883B	70391355	Screw, BITTB3X8 SZN
D885	23316642	Diode, YG911S2R
D885B	70391355	Screw, BITTB3X8 SZN
D891	23118052	Diode, RU4Z LF-L1
D892	23118052	Diode, RU4Z LF-L1
D896	23118479	Diode, BYD33J
D901	23115599	Diode, 1N4148
D904	23115599	Diode, 1N4148
D905	23115599	Diode, 1N4148
D906	23115599	Diode, 1N4148
D907	23115599	Diode, 1N4148
D908	23115599	Diode, 1N4148
D909	23115599	Diode, 1N4148
D911	23118479	Diode, BYD33J
D912	23115599	Diode, 1N4148
D4410	23115599	Diode, 1N4148
D4411	23115599	Diode, 1N4148

Location No.	Part No.	Description
DA02	23115599	Diode, 1N4148
DA03	23115599	Diode, 1N4148
DA42	23316673	Diode, Zener, MTZJ5.6C
DB01	23358505	Diode (LED), SLR56VC196F
DB02	23358503	Diode (LED), SCL003MC3FX
DB03	23358503	Diode (LED), SCL003MC3FX
DB04	23358515	Diode (LED), SCL003DC3FXG, Orange
DB30	23115599	Diode, 1N4148
DR01	23115599	Diode, 1N4148
DR02	23115599	Diode, 1N4148
DR02	23316557	Diode, HSM221C, TL
DR03	23115599	Diode, 1N4148
DR03	23118351	Diode, Zener, RD4.7M-T1BB2
DV14	23118296	Diode, Zener, RD9.1M-T1BB2
DV21	23115599	Diode, 1N4148
MISCELLANEOUS		
B221	23037312	Screw, BTBW 3X12 SZN
B224	23037312	Screw, BTBW 3X12 SZN
BB10	23368627	Plug, 8P
BB10A	23903022	Socket, 8P
BB10B	23903022	Socket, 8P
BB11	23368627	Plug, 8P
BB11A	23903022	Socket, 8P
BB11B	23903022	Socket, 8P
BB12	23368627	Plug, 8P
BB12A	23903022	Socket, 8P
BB12B	23903022	Socket, 8P
BB14	23368627	Plug, 8P
BB14A	23903022	Socket, 8P
BB14B	23903022	Socket, 8P
BB15	23368627	Plug, 8P
BB15A	23903022	Socket, 8P
BB15B	23903022	Socket, 8P
BB16	23368627	Plug, 8P
BB16A	23903022	Socket, 8P
BB16B	23903022	Socket, 8P
△F470	23144503	Fuse, 1.25A, 250V
F470A	23165433	Holder, Fuse
△F801	23144508	Fuse, 4.0A, 250V
F801A	23165433	Holder, Fuse
△F802	23144506	Fuse, 2.5A, 250V
F802A	23165433	Holder, Fuse
F889	23144458	Fuse, 5.0A, 250V
F889A	23165433	Holder, Fuse
G299	24366103	CF, 10k ohm
G306	24366562	CF, 5600 ohm
G312	24366472	CF, 4700 ohm
G402	23103859	Coil (Ferrite Bead), TEM2011
G403	23103859	Coil (Ferrite Bead), TEM2011
G430	23115532	Diode, ERB12-01E
G465	23316672	Diode, Zener, MTZJ5.6B
G484	24590103	PF, 0.01μF
G510	23289838	Coil, Peaking, TRF44R7AT
G527	24567104	PF, 0.1μF
G528	24567104	PF, 0.1μF
G529	24567104	PF, 0.1μF
G684	23115599	Diode, 1N4148
G824	23222694	Coil, Choke, TLN2026
G911	23289846	Coil, Peaking, TRF4101AT
GJ11	24000824	Chip Jumper, 2125Type
GJ12	24000824	Chip Jumper, 2125Type
GJ12	24000824	Chip Jumper, 2125Type

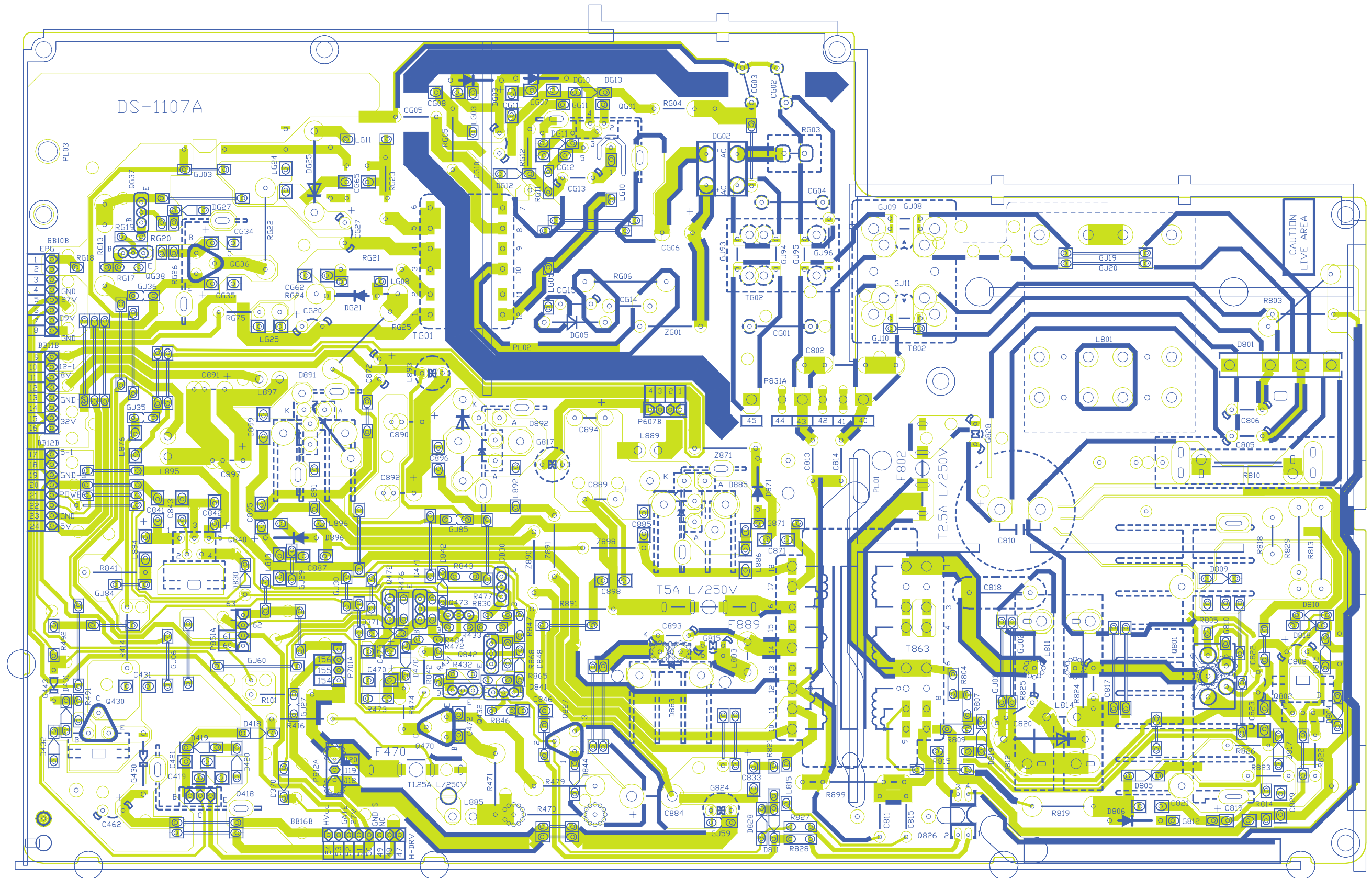
Location No.	Part No.	Description
GJ13	24000824	Chip Jumper, 2125Type
GJ13	24000824	Chip Jumper, 2125Type
GJ14	24000824	Chip Jumper, 2125Type
GJ14	24000824	Chip Jumper, 2125Type
GJ15	24000824	Chip Jumper, 2125Type
GJ16	24000824	Chip Jumper, 2125Type
GJ17	24000824	Chip Jumper, 2125Type
GJ22	24000824	Chip Jumper, 2125Type
GJ23	24000824	Chip Jumper, 2125Type
GJ24	24000824	Chip Jumper, 2125Type
GJ25	24000824	Chip Jumper, 2125Type
GJ26	24000824	Chip Jumper, 2125Type
GJ27	24000824	Chip Jumper, 2125Type
GS01	24000824	Chip Jumper, 2125Type
GV03	23103832	Chip (Ferrite Bead), TEM2125M
GV04	23103832	Chip (Ferrite Bead), TEM2125M
GV05	24872101	Chip, 100 ohm, 1/16W
GV06	23103832	Chip (Ferrite Bead), TEM2125M
GV07	24000824	Chip Jumper, 2125Type
GV08	24000824	Chip Jumper, 2125Type
GV11	24000824	Chip Jumper, 2125Type
GV35	24872101	Chip, 100 ohm, 1/16W
GV41	24872102	Chip, 1k ohm, 1/16W
H002	23148737	Module, MPSS11B, NICAM/IGR A-PRO A
KB01	23904946	Remote Sensor, RPM-676CBR-S
P004	23161702	Terminal, 8P
P402A	23902213	Socket, B-B, 10P
P403A	23902213	Socket, B-B, 10P
P501A	23902650	Socket, B-B, 13P
P501B	23367722	Plug, B-B, 13P
P502A	23902655	Socket, B-B, 15P
P502B	23367724	Plug, B-B, 15P
P512A	23902863	Socket, 20P
P512B	23368520	Plug, B-B, 20P
P513A	23902863	Socket, 20P
P513B	23368520	Plug, B-B, 20P
P661	23363607	Jack, Headphone
△P801	23372151	Power Cord
PF01	23902655	Socket, B-B, 15P
PH01	23902604	Socket, 21P
PH02	23902604	Socket, 21P
PH03	23902604	Socket, 21P
PM01	23367724	Plug, B-B, 15P
PV01	23365450	Jack, OS5P
PX02A	23902781	Socket, B-B, 12P
PX02B	23368531	Plug, B-B, 12P
S601	23145355	Switch, Slide, 4C-2P
S631	23145412	Switch, Slide, 2C2P
△S801	23344416	Switch, Power
SA01	23145430	Switch, Push, 1C1P
SA02	23145430	Switch, Push, 1C1P
SA03	23145430	Switch, Push, 1C1P
SA04	23145430	Switch, Push, 1C1P
SA05	23145430	Switch, Push, 1C1P
SA06	23145430	Switch, Push, 1C1P
SR40	23146564	Relay, DC12V
△SR83	23146570	Relay, DC12V
△V901A	23903027	Socket, CRT, 8P
W661	23351116	Speaker, SPK-1382,

BLANKING BOARD PB9514J-2
BOTTOM (FOIL) SIDE

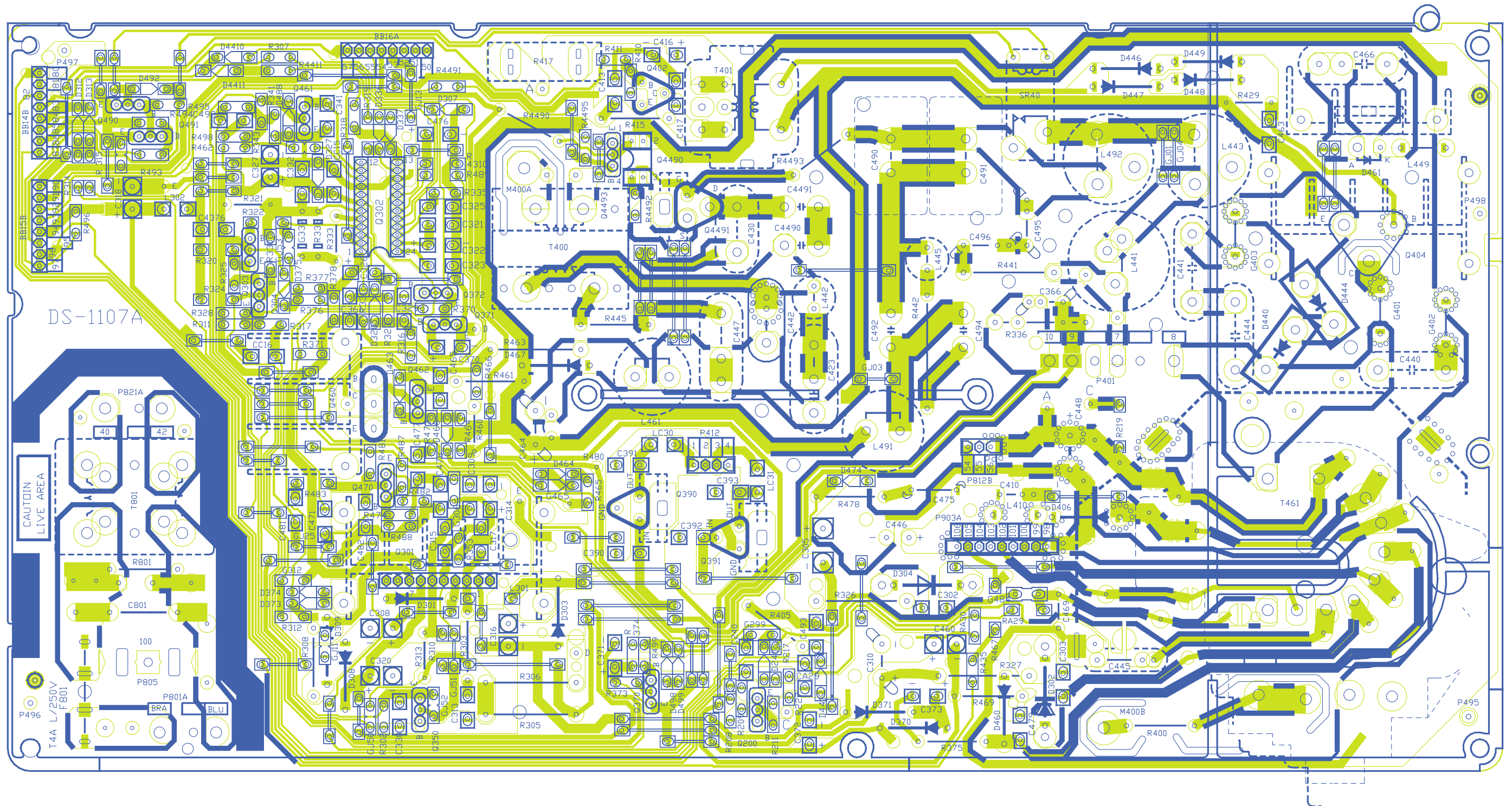
SIGNAL BOARD PB9514J-1
BOTTOM (FOIL) SIDE



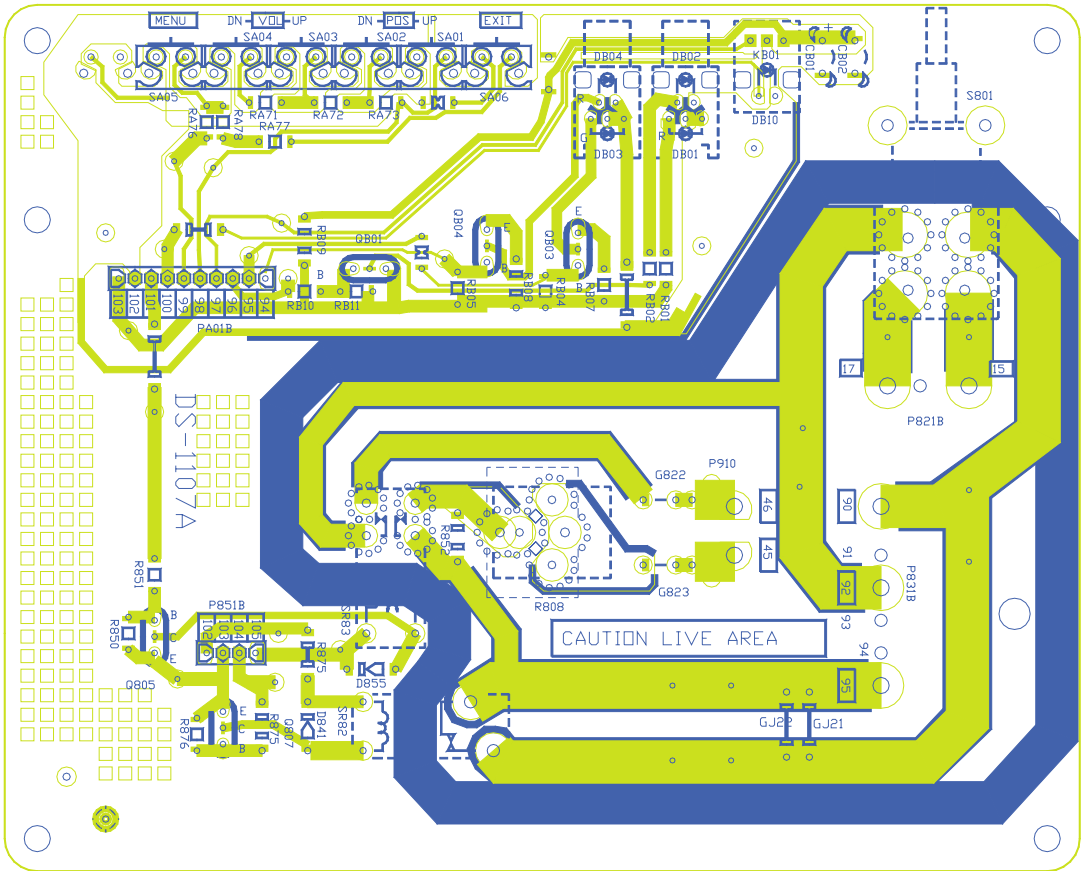
POWER BOARD PB9515K
BOTTOM (FOIL) SIDE



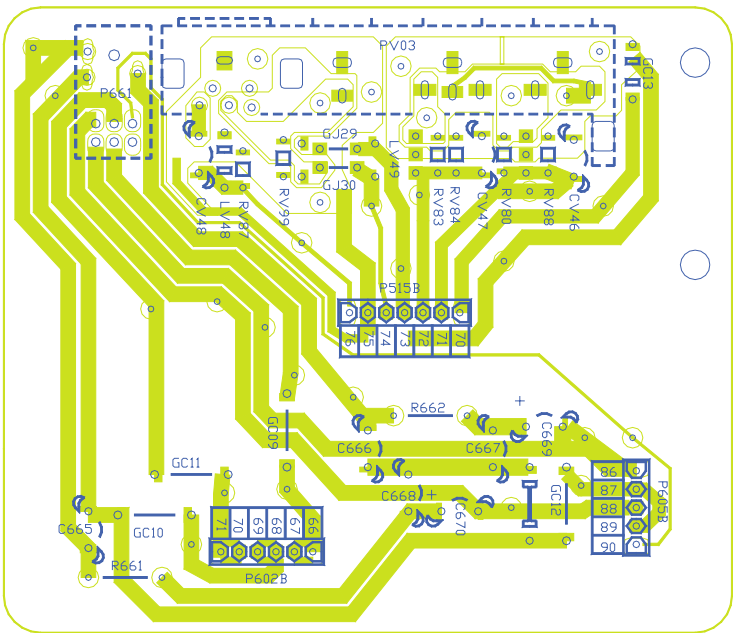
BOTTOM (FOIL) SIDE



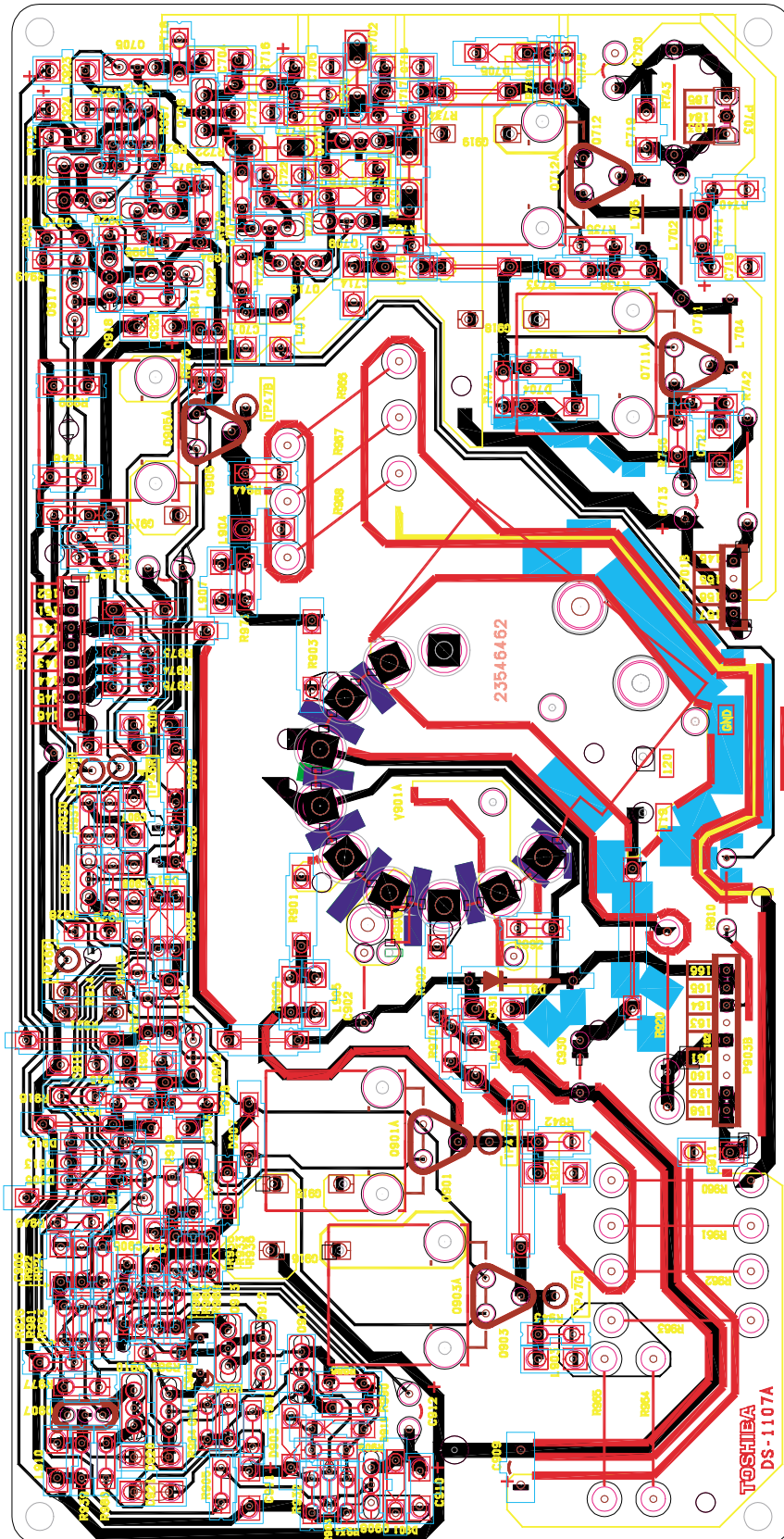
CONT-1 PRO BOARD PB9518C-1
BOTTOM (FOIL) SIDE



CONT-2 PRO BOARD PB9518C-2
BOTTOM (FOIL) SIDE



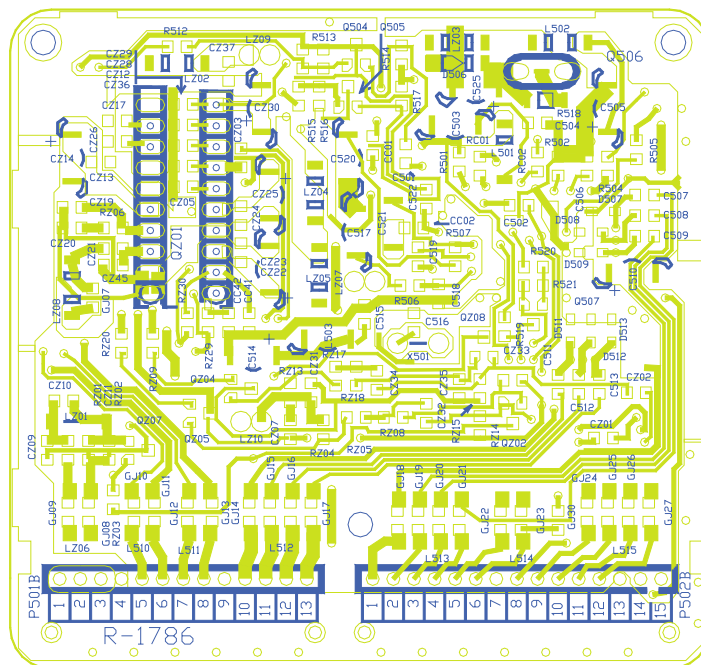
CRT DRIVE/DSM BOARD PB9513E
BOTTOM (FOIL) SIDE



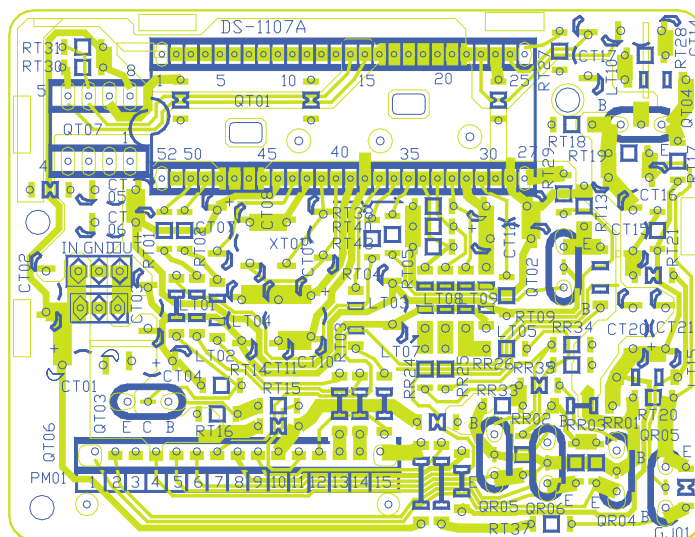
BOTTOM (FOIL) SIDE



D-COMB BOARD PB9510B **BOTTOM (FOIL) SIDE**

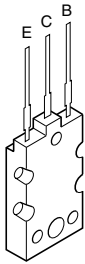


TEXT BOARD PB9592A **BOTTOM (FOIL) SIDE**

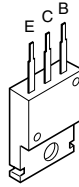


TERMINAL VIEW OF TRANSISTORS

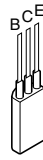
① 2SD2253
(old)
2SC5243
2SC5570



② 2SC3852
2SD1763A
2SC1569
2SC4544
2SA1788
2SA1306
2SA1186A



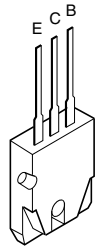
③ 2SC752GTM
2SC2482
2SC2655
2SC4721P



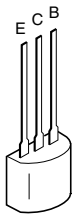
④ 2SC752
2SA562TM
2SA1015
2SC1815
2SC2878
2SC1740S
2SC2120
2SA9335



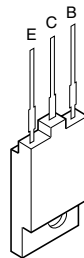
⑤ 2SA1788



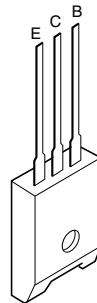
⑥ RN2203
RN2201
RN2004
RN1203
RN1204
RN2204
RN1205
RN1202
RN1201



⑦ 2SD1554
2SD2253
2SD1556
2SC5143
2SD2553



⑧ ON4409



[illegible]

SPECIFICATIONS (Representative: 32Z17B)

Input Power Rating:	AC 220 ~ 240 Volts, 143±10W 50 Hz				
Aerial Input Impedance:	75 ohm unbalanced type for VHF, UHF and CATV				
Receiving Channels:	System	Channel	VHF	UHF	CATV
	PAL I	UK		21 ~ 69	
	PAL, /60 Hz (For Video Disk play back)				
	4.43 NTSC (For VCR playback), 3.58 NTSC (For VCR playback)				
Intermediate Frequencies:	Picture I-F carrier frequency 38.9 MHz (L VL)				
	Sound I-F carrier frequency 32.9 MHz				
Picture Tube:	32 inches, 760 mm (measured on diagonal of viewable picture area)				
	106° deflection				
Sound Output:	10 W + 10 W (at 10% Distortion, Main), 10 W (at 10% Distortion, Center)				
	5 W + 5 W (at 10% Distortion, Surround)				
Speakers:	60 mm × 120 mm oval, 2 pcs (Main), 60 mm × 120 mm oval, 1 pc (Center)				
Aux. Terminals:	21 pin socket (FULL), 21 pin socket (S-VIDEO/AV), MONITOR OUTPUT, STEREO HEADPHONE JACK (3.5mm).				
	DVD Terminal				
Cabinet:	Table type				
Dimensions:	Height 574 mm				
	Width 918 mm				
	Depth 560 mm				
Mass:	57.0 kg				

* Please refer to owner's manual in detail.

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN